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National Headquarters - Washington Office
Washington, DC**

**Forest Service Handbook 5709.16 – Aviation Management Handbook
Chapter 30 – Aviation Operations**

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Responsible Staff:

Explanation of changes: Following is an explanation of the changes throughout the directive by section.

30 - This amendment substantially revises the entire chapter to better align with the U.S. Forest Service mission.

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30 – Aviation Operations

30.1 – General

This chapter establishes aviation standards and procedures for all aviation activities, mission planning, and flight operations, including agency-owned aircraft, flight and pilot services contracts, partner and cooperator aircraft and pilots, aviation personnel, and aviation facilities.

All aviation operations must be conducted in compliance with the following:

1. Applicable portions of 14 U.S. Code of Federal Regulations (14 CFR) Parts 91, 107, 121, 125, 133, 135, and 137, except those Exemptions identified in 30.2.
2. Aircraft flight manual/pilot operating handbooks.
3. Forest Service manuals, handbooks, guides, interagency guides, and standards and contracts. Refer to FSM 5706.

Contract flightcrews and aircrews must comply with 14 CFR under which their operating certificate is based, any direction spelled out in each individual contract and agency operations plans and standards.

30.11 – Authority

Refer to FSM 5701.

30.12 – Objectives

Refer to FSM 5702.

30.13 – Policy

Pilots and aviation users are expected to make sound decisions, including canceling a flight, when conditions or circumstances may cause undue risk.

Each employee, cooperator, and contractor is responsible for conducting aviation operations that are:

1. Approved by management;
2. Planned properly;
3. Utilize the correct equipment;
4. Use qualified personnel; and
5. Mitigated to a level of risk that is as low as reasonably practicable (ALARP).

Forest Service employees perform challenging work in very high-risk and dynamic environments that are not always predictable. This responsibility can only be realized through participation of every employee. Safety is the first priority, and leadership at all levels must foster a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal. The four components of Aviation Safety Management Systems (ASMS)—Policy, Risk Management, Assurance, and Promotion—are critical to the success of safe operations.

Refer to FSM 5703.

30.13a – Use of Agency or Government Aircraft

First priority for Forest Service missions must be given to agency-owned or agency leased Aerial Supervision Module aircraft, second priority to Forest Service exclusive use contracted aircraft, third priority to Department of the Interior agency owned and exclusive use contracted aircraft, fourth priority to Forest Service or Department of the Interior call-when-needed contracted aircraft, and last priority to approved cooperator aircraft to accomplish aviation missions (refer to FSM 5703).

Approved cooperator aircraft use on federal incidents is subject to certification that there is significant and imminent threat to life or property (including natural resources) and that no federally contracted aircraft is available to meet the request. Certification is documented through the Cooperator Aircraft Certification Worksheet as referenced in the National Interagency Mobilization Guide and the Interagency Standards for Fire and Fire Aviation Operations.

If the cooperator aircraft meets the criteria above, it may be used on the federal incident until the threat no longer exists or a federally contracted aircraft can replace it on the incident. Fire aviation missions must have priority over agency administrative flights.

30.13b – Use of Agency-owned, Contracted, or Leased Aircraft for Static Displays or Flight/Aerial Demonstrations.

Use of Agency-owned, contracted, or leased aircraft for static displays or flight/aerial demonstrations (fly-bys, water dropping, parachute jumps, rappelling or other aerial demonstrations) must be requested 60 days in advance, by letter, to the Washington Office (WO), Assistant Director, Aviation. A written request must originate from a WO Staff Director or Regional Fire Director and include the following documents:

1. Formal request from the private/public organization requesting Forest Service participation in the static display or flight/aerial demonstration.
2. Final Draft Mission Aviation Safety Plan (PASP). Approval of the MASP will occur if the request is approved.
3. Static Display or Flight/Aerial Demonstration Plan to include objectives, risks (financial, operational and public perception) detailed flight plans (including to and from the event and event flights), estimated costs, pilot designations, and Forest Service messages to be included.

If the request includes contracted or leased aircraft, the appropriate Contracting Officer will also be included in the approval process by Washington Office FAM.

30.13c – Emergency Situations

Individuals who are involved in an event in which there clearly exists an imminent threat to human life, and there is insufficient time to utilize approved methods, may deviate from policy to the extent necessary to preserve life.

When deviation from policy is necessary, all the following actions must apply:

1. Personnel involved in the decision making associated with deviating from policy must do a Time Critical Risk Assessment (refer to definition of Time Critical Risk Assessment in the National Aviation Safety Management System Guide [NASMSG]);
 2. Deviations must be documented on form FS-5700-14, Aviation Safety Communiqué (SAFECOM); and
 3. The Line Officer shall be notified as soon as practical.
- Refer to 30.31.

30.14 – Responsibility

Refer to FSM 5704.

30.14a – Washington Office, Branch Chief, Aviation Operations and Regional Aviation Officers

Refer to FSM 5704.

30.14b – Washington Office Aerial Supervision Program Manager (ASPM)

The Washington Office Aerial Supervision Program manager reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, coordination and oversight for the agency aerial supervision program, which includes, air tactical, lead plane, aerial supervision module and helicopter coordinator operations;
2. Develop, manage, coordinate, and implement the budget for the national aerial supervision program;
3. Coordinate national aerial supervision related activities with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of aerial supervision activities with Washington Office staff and regional staff;

5. Lead the aerial supervision aircraft contracting process, coordinating with Contracting Officers, Regional subject matter experts, and WO aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
6. Administer aerial supervision aircraft contracts as a contracting officer's representative or contracting officer's technical representative;
7. Coordinate aerial supervision staffing, readiness, availability, capability, and response with the Contracting Officers, WO Fixed-wing Coordinator, and the National Interagency Coordination Center;
8. Lead the development and recommendation of agency and interagency aerial supervision related policy and training. Coordinate with WO aviation staff, Regional aviation staff and interagency partners and cooperators during the process;
9. Lead course development, instruction, and training for national interagency aerial supervision courses, academies, simulations, computer based training and currency coordinating with WO aviation staff, Regional aviation staff and interagency partners and cooperators;
10. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
11. Maintain air tactical group Supervisor currency and qualifications;
12. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
13. Attend regional refresher training sessions to provide national direction, policy and program updates;
14. Understand, implement, and maintain the responsible areas of the FS Aviation Safety Management System within their scope of duties;
15. Serve as team leader for detailed Aviation Management Specialists and other employees for aerial supervision related special work projects and assignments.

30.14c – Washington Office Airtanker Program Manager (ATPM)

The Washington Office Airtanker Program manager reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, and oversight for the Agency airtanker program, which includes large airtankers, airtanker bases, agency-contracted SEATs and Modular Airborne Firefighting Systems (MAFFS) units and operations;

2. Develop, manage, coordinate, and implement the budget for the national airtanker program;
3. Coordinate national airtanker related activities with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of airtankers and airtanker base activities with Washington Office staff and Regional Staff;
5. Coordinate airtanker readiness, availability, and response with the Contracting Officer, Washington Office Fixed-wing Coordinator, and the National Interagency Coordination Center;
6. Lead the airtanker contracting process, coordinating with Contracting Officers and Washington Office aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
7. Administer airtanker contracts as a contracting officer's representative or contracting officer's technical representative;
8. Lead the development and recommendation of agency and interagency airtanker related policy, including guides and operational plans. Coordinate with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators during the process;
9. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
10. Coordinate with cooperators and partners regarding any airtanker related activities;
11. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
12. Understand, implement, and maintain the responsible areas of the FS Aviation Safety Management System within their scope of duties;
13. Serve as team leader for detailed Aviation Management Specialists (may include an Assistant Airtanker Program Manager and Airtanker Base Specialist) and other employees for airtanker or airtanker base related special work projects and assignments.

30.14d – Washington Office Airtanker Base Specialist (ATBS)

The National Airtanker Base Specialist reports to the National Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, and oversight for the agency airtanker bases, which includes permanent, call-when-needed and temporary bases, Modular Airborne Firefighting Systems (MAFFS) and the national retardant contract;
2. Develop, manage, coordinate, and implement the budget for the national airtanker bases and MAFFS coordinating with the National Airtanker Program Manager and Washington Office aviation staff;
3. Coordinate national airtanker base and MAFFS related activities with the Airtanker Program Manager, Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of airtanker base activities with the Airtanker Program Manager, National staff and regional staff;
5. Administer aviation contracts as needed as a contracting officer's representative or contracting officer's technical representative;
6. Lead the development and recommendation of agency and interagency airtanker base and MAFFS related policy, including guides and operational plans. Coordinate 7 with National Airtanker Program Manager, National aviation staff, Regional aviation staff and interagency partners and cooperators during the process;
8. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
9. Coordinate with cooperators and partners regarding any airtanker base related activities;
10. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
11. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within their scope of duties;
12. Serve as team leader for detailed Aviation Management Specialists and other employees for airtanker base related special work projects and assignments.

30.14e – Washington Office Helicopter Program Manager (HPM)

The Washington Office Helicopter Program manager reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization and oversight for the agency helicopter program, which includes type 1 (heavy), type 2 (medium), type 3 (light) helicopters, agency owned helicopters, and helicopter operations;

2. Develop, manage, coordinate, and implement the budget for the national helicopter program;
3. Coordinate national helicopter related activities with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of helicopters and helicopter base activities with Washington Office staff and regional staff;
5. Lead the helicopter contracting process, coordinating with Contracting Officers, Washington Office aviation staff and regional aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
6. Coordinate helicopter availability, readiness, capability, and response with the Washington Office Helicopter Coordinator and the National Interagency Coordination Center;
7. Lead the development and recommendation of agency and interagency helicopter related policy, including guides and operational plans. Coordinate with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators during the process;
8. Lead course development, instruction, and training for national helicopter or helicopter operations courses, academies, simulations, computer-based training, and currency coordinating with Washington Office aviation staff, regional aviation staff, and interagency partners and cooperators during the process;
9. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
10. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
11. Attend regional refresher training sessions to provide national direction, policy and program updates;
12. Understand, implement, and maintain the responsible areas of the FS Aviation Safety Management System within their scope of duties;
13. Serve as team leader for the Washington Office Helicopter Operations Specialist, Washington Office Rappel Specialist, and other detailed Aviation Management Specialists and employees for helicopter or helicopter operations related special work projects and assignments.

30.14f – Washington Office Helicopter Operations Specialist (HOS)

The Washington Office Helicopter Operations Specialist reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization and oversight for agency helicopter operations, which includes type 1 (heavy), type 2 (medium), type 3 (light) helicopters, agency owned helicopters, and all helicopter operations;
2. Develop, manage, coordinate, and implement the budget for the national helicopter operations program;
3. Coordinate national helicopter operations related activities with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of helicopters and helicopter base activities with WO staff and Regional Staff;
5. Participate in the helicopter contracting process, coordinating with Contracting Officers, WO aviation staff and Regional aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
6. Coordinate helicopter availability, readiness, capability, and response with the Washington Office Helicopter Coordinator and the National Interagency Coordination Center;
7. Lead the development and recommendation of agency and interagency helicopter operations related policy, including guides and operational plans. Coordinate with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators during the process;
8. Lead course development, instruction, and training for national helicopter or helicopter operations courses, academies, simulations, computer-based training, and currency coordinating with WO aviation staff, Regional aviation staff, and interagency partners and cooperators during the process;
9. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
10. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
11. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within their scope of duties;

12. Serve as team leader for the Washington Office detailed Aviation Management Specialists and employees for helicopter or helicopter operations related special work projects and assignments.

30.14g – Washington Office Assistant Helicopter Operations Specialist (AHOS)

The National Assistant Helicopter Operations Specialist reports to the National Branch Chief, Aviation Operations. Supervision is provided by the National Helicopter Operations Specialist. The Assistant Helicopter Operations Specialist has the responsibility to:

1. Provide leadership, expertise, standardization, and oversight for agency helicopter operations, the national emergency medical short-haul program and national helicopter aerial ignition program;
2. Develop, manage, coordinate, and implement the budget for national helicopter operations, national emergency medical short-haul program and national helicopter aerial ignition program with the National Helicopter Operations Specialist;
3. Coordinate helicopter operations, emergency medical short-haul program, aerial ignition program and related activities with National Helicopter Operations Specialist, National Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of helicopter operations, emergency medical short-haul modules with the National Helicopter Operations Specialist, other National aviation staff and Regional aviation staff;
5. Participate in the contracting process for helicopters coordinating with the Washington Office Helicopter Operations Specialist during emergency medical short-haul and aerial ignition specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
6. Coordinate emergency medical short-haul helicopter and crew capability and response with the National Helicopter Coordinator;
7. Participate in the development and recommendation of agency emergency medical short-haul operations and aerial ignition related policy, including guides and operational plans. Coordinate with National Helicopter Operations Specialist during the process;
8. Lead course development, instruction, and training for emergency medical short-haul training, academies, simulations, and currency coordinating with National Helicopter Operations Specialist during the process;
9. Lead course development, instruction, and training for aerial ignition training, academies, simulations, and currency coordinating with National Helicopter Operations Specialist during the process;

10. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
11. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
12. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within their scope of duties.

30.14h – Washington Office Helicopter Rappel Specialist (HRS)

The Washington Office Helicopter Rappel Specialist reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, and oversight for agency helicopter rappel operations and training;
2. Develop, manage, coordinate, and implement the budget for the national helicopter rappel program;
3. Coordinate national helicopter rappel related activities with Washington Office aviation staff, Regional aviation staff and interagency partners and cooperators;
4. Coordinate field Quality Assurance Reviews of helicopters, helicopter bases, and rappel activities with Washington Office staff and regional staff;
5. Participate in the helicopter contracting process specific to rappel helicopters, coordinating with Contracting Officers, Washington Office aviation staff and regional aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
6. Coordinate rappel helicopter availability, readiness, capability, response, and booster personnel with the Washington Office Helicopter Coordinator and the National Interagency Coordination Center;
7. Lead the development and recommendation of agency and interagency helicopter rappel related policy, including guides and operational plans. Coordinate with Washington Office aviation staff, regional aviation staff and interagency partners and cooperators during the process;
8. Lead course development, instruction, and training for national helicopter rappel courses, academies, simulations, computer based training and currency coordinating with Washington Office aviation staff, regional aviation staff and interagency partners during the process;
9. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;

10. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
11. Understand, implement, and maintain the responsible areas of the FS Aviation Safety Management System within their scope of duties;
12. Serve as team leader for the Washington Office detailed Aviation Management Specialists and employees for helicopter rappel related special work projects and assignments.

30.14j – Washington Office Aircraft Coordinator (AC)

The National Aircraft Coordinator reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, coordination, and oversight for national aircraft coordination to include staffing, readiness, availability, capability, and response coordinating with the Contracting Officers, Washington Office Helicopter Program Manager, Regional Aviation Staff, and the National Interagency Coordination Center;
2. Develop, manage, and coordinate the collection of daily and annual helicopter use, mission and cost data;
3. Coordinate and schedule administrative use of aircraft flights for the Washington Office. Develop and maintain the required documentation for each flight;
4. Participate in the aircraft contracting process, coordinating with Contracting Officers, Regional subject matter experts, and WO aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
5. Participate in the development and recommendation of agency and interagency helicopter and fixed-wing related policy and training. Coordinate with Washington Office aviation staff, regional aviation staff and interagency partners and cooperators during the process;
6. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
7. Understand, implement, and maintain the responsible areas of the Forest S Aviation Safety Management System within their scope of duties;
8. Serve as team leader for National Fixed-wing Coordinator and other employees for fixed-wing and helicopter related special work projects and assignments.

30.14k – Washington Office Fixed-wing Coordinator (FWC)

The National Fixed-wing Coordinator reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, coordination, and oversight for national fixed-wing aircraft coordination to include staffing, readiness, availability, capability, and response coordinating with the Contracting Officers, Washington Office Air tanker Program Manager, WO Aerial Supervision Program Manager, Regional Aviation Staff, Pilots, and the National Interagency Coordination Center;
2. Develop, manage and coordinate the collection of daily and annual fixed-wing aircraft use, mission and cost data;
3. Coordinate and schedule administrative use of aircraft flights for the Washington Office. Develop and maintain the required documentation for each flight;
4. Participate in the aircraft contracting process, coordinating with Contracting Officers, Regional subject matter experts, and WO aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
5. Participate in the development and recommendation of agency and interagency fixed-wing related policy and training. Coordinate with Washington Office aviation staff, regional aviation staff and interagency partners and cooperators during the process;
6. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
7. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within their scope of duties;
8. Serve as team leader for aviation management specialists and other employees for fixed-wing related special work projects and assignments.

30.14l – Washington Office Smokejumper Program Manager (SPM)

The Washington Office Smokejumper Program Manager reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization and oversight for the agency smokejumper program, which includes, parachute systems, Ram-air parachute transition, smokejumper contract aircraft, agency-owned smokejumper aircraft, and operations;

2. Develop, manage, coordinate, and implement the budget for the national smokejumper program;
3. Coordinate national smokejumper related activities with Washington Office aviation staff, regional aviation staff, and interagency partners;
4. Coordinate and communicate smokejumper incident, accident, malfunction, and abnormalities reporting with Washington Office staffs, regional staffs, and interagency partners;
5. Coordinate field Quality Assurance and Smokejumper Base Reviews of smokejumper activities with Washington Office staff and regional staff;
6. Lead the smokejumper aircraft contracting process, coordinating with Contracting Officers, Regional subject matter experts, and Washington Office aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
7. Coordinate smokejumper availability, capability, and response with Regional or smokejumper base staff, Washington Office Operations, the Bureau of Land Management smokejumpers and the National Interagency Coordination Center;
8. Lead the development and recommendation of agency and interagency smokejumper and smokejumper aircraft related policy, including guides and operational plans. Coordinate with Washington Office aviation staff, Regional aviation staff, and interagency partners;
9. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
10. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
11. Understand, implement, and maintain the responsible areas of the FS Aviation Safety Management System within their scope of duties;
12. Serve as team leader for the Aviation Management Specialists and other employees for ram-air transition, SD3-60 Sherpa transition and other smokejumper related special work projects and assignments.

30.14m – Washington Office Ram-air Parachute System Specialist (RAMS)

The Washington Office Ram-air Parachute System Specialist reports to the Washington Office Branch Chief, Aviation Operations. Supervision is provided by the Washington Office Smokejumper Program Manager. The Ram-air Parachute System Specialist has the responsibility to:

1. Provide leadership, expertise, standardization, and oversight for the Agency Ram-air parachute transition;
2. Develop, manage, coordinate, and implement the budget for the ram-air parachute program and the transition with the Washington Office Smokejumper Program Manager;
3. Coordinate ram-air parachute system related activities with Washington Office Smokejumper Program Manager, other aviation staff, regional aviation staff and interagency partners;
4. Coordinate and communicate ram-air parachute system related incident, accident, malfunction and abnormalities reporting with the Washington Office Smokejumper Program Manager, Washington Office staffs, regional staffs, and interagency partners;
5. Participate in field Quality Assurance and Smokejumper Base Reviews of smokejumper activities;
6. Participate in the ram-air parachute system contracting process, coordinating with Contracting Officers, Regional subject matter experts, and Washington Office aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
7. Lead the development and recommendation of agency and interagency ram-air parachute system related policy, including guides and operational plans. Coordinate with the Washington Office Smokejumper Program Manager, Washington Office aviation staff, Regional aviation staff, and interagency partners;
8. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
9. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
10. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within their scope of duties;
11. Serve as team leader for Aviation Management Specialists and other employees assigned to the ram-air parachute transition and related special work projects and assignments.

30.14n – Washington Office Unmanned Aircraft Systems Program Manager (UASPM)

The Washington Office Unmanned Aircraft Systems (UAS) Program Manager reports to the Washington Office Branch Chief, Aviation Operations. Responsibilities include, but are not limited to:

1. Provide leadership, expertise, standardization, coordination, and oversight for the agency and interagency UAS program;
2. Develop, manage, coordinate, and implement the budget for the national UAS program;
3. Lead the UAS contracting process, coordinating with Contracting Officers, regional subject matter experts, and WO aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
4. Lead the development and recommendation of agency and interagency UAS related policy and training. Coordinate with Washington Office aviation staff, regional aviation staff and interagency partners and cooperators during the process;
5. Coordinate the evaluation and testing of UAS related equipment and technology with the technology and development centers;
6. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
7. Work leader for detailed Aviation Management Specialists and other employees for UAS related special work projects and assignments;
8. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
9. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.

30.14o – Washington Office Unmanned Aircraft Systems Specialist

The Washington Office Unmanned Aircraft Systems Specialist reports to the National Branch Chief, Aviation Operations. Supervision is provided by the National UAS Program Manager. Responsibilities include, but are not limited to:

1. Provide leadership, expertise, standardization, coordination, and oversight for the Agency and interagency UAS operations;
2. Develop, manage, coordinate, and implement the budget for the National UAS program in coordination with the UAS Program Manager;

3. Support the UAS contracting process, coordinating with Contracting Officers, Regional subject matter experts, the National UAS Program Manager and National aviation staff during specification and requirements development, solicitation review and finalization and technical evaluation of proposals;
4. Lead the development and recommendation of agency and interagency UAS related policy and training. Coordinate with National UAS Program Manager, National aviation staff, regional aviation staff and interagency partners and cooperators during the process;
5. Coordinate the evaluation and testing of UAS related equipment and technology with the technology and development centers;
6. Meet the training requirements for aviation managers as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide;
7. Team leader for detailed Aviation Management Specialists and other employees for UAS related special work projects and assignments;
8. Represent the Forest Service on agency and Interagency committees and subcommittees, as assigned;
9. Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.

30.14p – Regional Unmanned Aircraft System (UAS) Coordinator

Regions may identify a collateral duty position or establish a position responsible for managing the region's UAS program. Responsibilities include, but are not limited to:

1. Maintaining a current regional database of UAS remote pilots and remote pilot trainees in those positions;
2. Coordinate all regional UAS operations with the National UAS Program Manager;
3. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned.

30.14q – Washington Office Aviation Management or Program Specialist

The Aviation Management or Program Specialist reports to the Washington Office Branch Chief, Aviation Operations and has the responsibility to:

1. Provide leadership, expertise, standardization, coordination, and administrative support for the Washington Office aviation division coordinating with the WO Branch Chiefs, Washington Office Program Managers and specialists, Regional Aviation Staff, Contracting Officers;

2. Provide administrative oversight and coordination for the Defense Logistics Administration's Aviation Into-plane Reimbursement Card® process, payments and fueling coordination;
3. Review, reconcile, and approve contract aircraft payment packages in the Aviation Business System;
4. Provide Aviation Business System administrative support as requested;
5. Administer aviation contracts as a contracting officer representative;
6. Complete small purchases using the agency purchase card authority;
7. Represent the Forest Service on Agency and Interagency committees and subcommittees, as assigned;
8. Serve as team leader for detailed employees for aviation support related special work projects and assignments.

30.15 – Definitions

Refer to FSM 5705 and the NASMSG.

30.16 – References

Refer to FSM 5706.

30.17 – Quality Assurance

Quality Assurance is auditing to a standard. The standard can be policy, a contract, an agreement, or operational procedures in agency plans and interagency guides.

Forest Service aviation has implemented Quality Assurance to ensure accountability and monitor the health of the aviation management program. Quality Assurance includes Aviation Management Reviews, Quality Assurance Reviews, and Functional Assistance Trips.

Quality Assurance Reviews and Functional Assistance Trips are the primary quality assurance methodologies used.

Quality Assurance is required within all functional areas of aviation management, to include management, operations, pilot standardization, airworthiness, safety, strategy, business operations, and training. Line Officers, Staff Directors, Aviation Supervisors, and Aviation Managers at all organizational levels must employ a comprehensive quality assurance process that includes:

1. An audit/review process and checklist that emphasizes evaluation and improvement of operations, pilots, aircraft, equipment, and personnel used by the Forest Service.

2. Personnel qualifications and training standards.
3. Operations, pilot, aircraft, and equipment standards and inspection processes, and standards.

Contract compliance.

Quality Assurance Reviews will be scheduled based on known aviation activities in a letter notifying the Regional or Forest Fire and Aviation staff. Actual timing and schedule changes will be coordinated prior to the review between the Washington Office, Regions, and Forests.

Functional Assistance Trips may occur at any time and will be coordinated between the Washington Office, Regions, and Forests.

Refer to FSM 5717.

30.2 – Exemptions

30.21 – Federal Aviation Administration Grants of Exemption

Under Grant of Exemption No. 392, the FAA authorized aircraft and airmen conducting operations for the Forest Service, United States Department of Agriculture, be granted an exception from the Federal Aviation Regulations to permit them to deviate from the provisions of those Regulations to the extent the Chief of the Forest Service finds necessary for the expeditious conduct of those operations, subject to certain limitations, and only to those operations involving emergencies such as fire, flood, or search and rescue, and training for these emergencies.

The FAA further supplemented and amended GE 392 with GE 392a. GE 392a specifically granted aircraft and airmen conducting operations for the United States Forest Service, Department of Agriculture, an exemption from Sections 91.15(a), 91.29(a), 91.33(b)(12), 91.79(c), 103.7, 103.9(a)(1), and 121.117 of the Federal Aviation Regulations (circa 1965), subject to certain limitations. GE-392a extends beyond emergency to non-emergency operations.

30.21a – Grant of Exemption GE-392

Historical Background: During the recodification of the FAA Regulations in 1965, Special Civil Air Regulation SR-397, which was originally issued March 19, 1953 and amended by letter April 7, 1953, was reissued as Grant of Exemption GE-392. GE-392 “modified and replaced” the authority granted in SR-397. SR-397 was subsequently deleted effective April 1, 1965.

SR-397 had authorized the Chief of the Forest Service, USDA, to deviate as follows:

Special Civil Air Regulation No. SR-397 was adopted by the Civil Aeronautics Board on June 30, 1953, and provided that, “contrary provisions of the Civil Air Regulations notwithstanding, the Chief, Forest Service, United States Department of Agriculture, is authorized to permit aircraft and airmen, while engaged in operations conducted for the United States Forest Service, to deviate from the provisions of the Civil Air Regulations to the extent he finds necessary for the

expeditious conduct of such operations.” (This included emergency and non-emergency operations.)

The broad applicability of SR-397, which extended to all Forest Service operations, was narrowed (in GE-392) to extend only to those operations involving emergencies such as fire, flood, or search and rescue, and training for these emergencies. Any other activities that the Forest Service conducted which might require deviations (such as non-emergency operations) were to be handled through the waiver process. Under GE-392, the Chief is authorized to issue the exemptions and notify the FAA; no further FAA approval was needed. Excerpts from GE-392 follow:

30.21a – Exhibit 1 – Excerpt from GE-392

Therefore, pursuant to the authority of Sections 307(e), 313(a), and 601(c) of the Federal Aviation Act of 1958, that has been delegated to me by the Administrator (14 U.S. Code of Federal Regulations, Part 11.53), aircraft and airmen conducting operations for the Forest Service, United States Department of Agriculture, are hereby granted an exception (sic) from the Federal Aviation Regulations to permit them to deviate from the provisions of those Regulations **to the extent the Chief of the Forest Service finds necessary for the expeditious conduct of those operations**, (bold text added) subject to the following limitations (summarized):

- Only to operations involving an emergency, and to training necessary for such operations.
- Auxiliary parachute to be packed by a certificated rigger.
- A copy of each deviation authorized by the Chief, along with applicable sections of 14 CFRs and any operational limitations, to be mailed to the FAA WO and appropriate (affected) FAA Regional Offices.
- A list of operators to whom this exemption extends including each operator's identity, base airport, aircraft that may be used, and the sections of the Federal Aviation Regulations involved, must be furnished, one to each appropriate FAA Regional and District Office.
- Any deviations the Chief might authorize and deliver by phone or telegraph due to the nature of an emergency must be given to the FAA, WO, FS-400.
- This, the sixth limitation, was added as an amendment via SR-392a and requires “The transportation of personnel by air to a staging area shall be conducted by an FAA certificated air carrier or commercial operator.”

Exemption No. 392 was signed by G.S. Moore, Director, FAA Flight Standards Service, March 31, 1965. Effective April 1, 1965 and remains in effect until superseded or rescinded.

Under the authority of Grant of Exemption GE-392, the Chief of the Forest Service has authorized the following deviations from Federal Aviation Regulations:

1. Operation of fixed-wing aircraft below 500 feet.
2. Non-use of seat belts.
3. Removal of aircraft door.
4. Use of unequipped airfields.

30.21a – Exhibit 2 – Operation of Fixed-wing Aircraft Below 500 Feet

AUTHORIZATION TO DEVIATE FROM FEDERAL AVIATION REGULATIONS (FAR 91)

In accordance with the authority vested in me, Chief of the Forest Service, by Grant of Exemption No. 392, I authorize the following deviation from Federal Aviation Regulations (FAR) as referenced in FAR 91.119, (b) and (c) and 91.313 (e.):

I authorize the operation of fixed-wing aircraft below 500 feet above the surface and closer than 500 feet to persons, vessels, vehicles, and structures.

In the United States of America.

For aircraft engaged in emergency operations for the Forest Service, United States Department of Agriculture.

With pilots appropriately certificated and pilots of the U.S. Armed Forces.

And with these limitations:

Deviation is **only allowed** for reconnaissance, aerial surveys, cargo dropping, and aerial application of fire retardants conducted by or for the Forest Service, U.S. Department of Agriculture, subject to the following:

A thorough air survey for hazards, including air conditions, in each operating area must be made prior to low-level flight operations.

All flights below 500 feet altitude must be confined to immediate areas being treated or where operational requirements make low-level flight essential.

All aircraft must follow planned flight courses.

Low-level operations must be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

Prior clearance must be obtained from the appropriate air traffic controller before any flight is made in controlled air space.

Pilots shall avoid creating any unnecessary hazard to persons or property on the ground.

Aerial application of fire retardants in congested areas must be avoided in normal situations. Where such operations are considered necessary owing to special circumstances, they may be authorized subject to these additional limitations:

30.21a – Exhibit 2-(continued) Operation of Fixed-wing Aircraft Below 500 feet

Airtanker operations in congested areas must be conducted only at the specific request of the responsible firefighting agency.

A Forest Service Leadplane with qualified Pilot (LEAD), or Air Tactical Supervision Module (ASM) must be ordered for all airtanker operations in congested areas when a fully qualified initial attack Airtanker Captain is piloting the aircraft. An Air Tactical Group Supervisor (ATGS) may provide temporary aerial supervision until the Leadplane or Air Tactical Supervisor Module (ASM) arrives on the scene, at which time the LEAD or ASM must directly supervise all such airtanker operations.

For all airtanker operations in congested areas, a LEAD or ASM is required if no ATGS is on scene. If an ATGS is on scene, a LEAD or ASM must be ordered.

When conducting pilot training, the designated Forest Service Leadplane Pilot (LEAD) or Air Tactical Supervision Module Pilot trainer must have immediate access to the flight controls, aircraft radios, and on-scene tactical communications.

When conducting Air Tactical Group Supervisor (ATGS) training, the designated Forest Service trainer must have immediate access to aircraft and on-scene tactical radio communications.

The Air Traffic Control (ATC) facility responsible for airspace control in vicinity of a proposed airtanker operation must be notified and a Temporary Flight Restriction, if appropriate, must be requested by the Forest Service or other responsible fire agency through their appropriate dispatch center prior to the commencement of airtanker operations.

No airtanker operation will be conducted unless the controlling platform (Leadplane Pilot (LEAD), Air Tactical Group Supervisor (ATGS), or Air Tactical Supervision Module (ASM)) has established positive communication with the on-scene Incident Commander, or designee.

The Incident Commander, or designee, shall advise the on-scene controlling platform (Leadplane Pilot (LEAD), Air Tactical Group Supervisor (ATGS), or Air Tactical Supervision Module (ASM)), that all nonessential people and movable property have been cleared from the area to be treated by airtankers prior to commencement of retardant application.

The on-scene controlling platform (Leadplane Pilot (LEAD), Air Tactical Group Supervisor (ATGS), or Air Tactical Supervision Module (ASM)) shall personally ascertain that people and movable property will not be placed in hazardous conditions by the proposed airtanker operation before commencement of retardant application.

The first pass of each operational drop series must be preceded by a dry run flown on the same pattern where the planned retardant will drop.

30.21a – Exhibit 3 – Non-use of Seat Belts

AUTHORIZATION TO DEVIATE FROM FEDERAL AVIATION REGULATIONS (FAR 91)

In accordance with the authority vested in me, Chief of the Forest Service, by Grant of Exemption No. 392, I authorize the following deviation from Federal Aviation Regulations (FAR) as referenced in FAR 91.205, (b)(13):

I authorize the transportation of smokejumpers, spotters or cargo droppers employed by the Forest Service or by the aircraft operator in aircraft with seats and/or safety belts which are not FAA approved.

In the United States of America.

For aircraft engaged in missions for the Forest Service, United States Department of Agriculture.

With pilots appropriately certificated in accordance with Federal Aviation Regulations.

With the following limitations:

Deviation specified is permitted only when aircraft is engaged in smokejumper or cargo dropping operations for the Forest Service, U.S. Department of Agriculture.

Smokejumpers for which FAA approved seats and safety belts are not provided must wear smokejumper protective clothing, including mask and headgear, when taking off or landing.

Cargo droppers and spotters for which FAA approved seats and safety belts are not provided must use Forest Service cargo dropper's or spotter's harness as a safety belt during takeoff and landing.

All smokejumper and cargo dropping operations must be in accordance with Forest Service directions.

30.21a – Exhibit 4 – Removal of Aircraft Door

AUTHORIZATION TO DEVIATE FROM FEDERAL AVIATION REGULATIONS (FAR 43)

In accordance with the authority vested in me, Chief of the Forest Service, by Grant of Exemption No. 392, I authorize the following deviation from Federal Aviation Regulations (FAR) as referenced in FAR 43:

I authorize the removal of the door on smokejumper and cargo-dropping aircraft.

In the United States of America.

For aircraft engaged in missions for the Forest Service, United States Department of Agriculture.

With pilots appropriately certificated in accordance with Federal Aviation Regulations.

With the following limitations:

Aircraft operating under this deviation must have the authorization for smokejumper or cargo-dropping operations approved by the Regional Aviation Officer or designee on the aircraft data card.

30.21a – Exhibit 5 – Use of Unequipped Airfields

AUTHORIZATION TO DEVIATE FROM FEDERAL AVIATION REGULATIONS (FAR 121)

In accordance with the authority vested in me, Chief of the Forest Service, by Grant of Exemption No. 392, I authorize the following deviation from Federal Aviation Regulations (FAR) as referenced in FAR 121, 135.2:

I authorize transportation of persons between staging areas and airfields not equipped with radio navigational aids and not meeting all of the requirements of FAR 121 and 135.2 for large aircraft.

In the United States of America.

For civil and public aircraft of U.S. registry engaged in missions for the Forest Service, United States Department of Agriculture.

With pilots appropriately certificated in accordance with Federal Aviation Regulations.

With the following limitations:

Air carrier or commercial operators of large aircraft must operate in full compliance with FAR 121 or 135.2 in point-to-point operations to a staging area which must be the nearest FAR-qualified airport to Forest Service operations.

Deviation permitted is limited to large aircraft carrying personnel for the Forest Service, U.S. Department of Agriculture, and is subject to the additional following provisions:

Aircraft must be specifically designated airplanes (Make, Model, Registration No. and Name of Operator) approved by the R/S/A Aviation Officer to operate to and from individually named airfields.

Pilots shall be limited to those certified in writing by the R/S/A Aviation Officer (in addition to the Forest Service Pilot Qualification Card) to fly specifically designated aircraft types into individually named airfields.

R/S/A Aviation Officers shall coordinate and mutually agree upon the type of aircraft, name of qualified pilot and name of each designated airfield prior to inter-regional use of this deviation.

Flights must be limited to FAA visual flight rules.

30.21b – Grant of Exemption GE-392a

Historical Background

In a letter dated May 5, 1965, the Chief, United States Forest Service, Department of Agriculture, requested authority to deviate in other than emergency situations from certain provisions of the Federal Aviation Regulations, most of which do not incorporate waiver authority. The resulting Grant of Exemption (Exemption No. 392a) was issued to “supplement” Exemption No. 392. In this request for exemption, the Chief requested relief from 7 Sections of the Federal Aviation Regulations, with specific deviations outlined.

In Exemption No. 392a, the FAA authorized the following:

“Aircraft and airmen conducting operations for the United States Forest Service, Department of Agriculture, are hereby granted an exemption from Sections 91.15(a), 91.29(a), 91.33(b)(12), 91.79(c), 103.7, 103.9(a)(1), and 121.117 of the Federal Aviation Regulations...” with certain limitations.

Exemption No. 392a both supplemented and amended Exemption No. 392.

Exemption 392 (the broad authority granted the Chief to approve deviations to any FARs (14 CFRs) “to the extent the Chief of the Forest Service finds necessary for the expeditious conduct of those (emergency) operations”) was supplemented with 7 additional authorizations to deviate from specific sections of the 14 CFRs. Those specific authorizations involve parachute packing requirements, door-off jump/para-cargo operations, seat belt use by smokejumpers, carriage of gasoline and diesel fuel with passengers on board (now covered by Interagency Aviation Transport of Hazardous Materials, Chapter 2), carriage of gasoline and diesel on cargo flights (now covered by Interagency Aviation Transport of Hazardous Materials, Chapter 2), and flight operations into unapproved airfields.

Exemption No. 392 was amended by Exemption No. 392a by reference and requires that “The transportation of personnel by air to a staging area shall be conducted by an FAA certificated air carrier or commercial operator.”

Exemption No. 392a was signed by Edward C. Hodson, Acting Director, FAA Flight Standards Office, on August 12, 1965 and remains in effect until superseded or rescinded.

Grant of Exemption GE-392a authorizes aircraft and airmen conducting operations for the Forest Service to deviate from the provisions of specific parts of the Federal Aviation Regulations in the performance of non-emergency operations, subject to certain limitations. Excerpts from GE-392a follow:

30.21b – Exhibit 1 – Excerpt from GE-392a

Aircraft and airmen conducting operations for the United States Forest Service, Department of Agriculture, are hereby granted an exemption from Sections 91.307(a), 91.7(a) and (b), 91.205(b)(12), 91.119(b) and (c), and 121.117 of the Federal Aviation Regulations, subject to the following limitations:

- a. The exemption extends to the approved parachute-type requirement, but not to the packing requirements, of Section 91.307(a).**
- b. The exemption from Section 91.7(a) and (b) is limited to operation of an aircraft carrying smokejumpers or making paradrops without an outside entrance door to the passenger or cargo cabin.**
- c. The exemption from Section 91.205(b)(12), is limited to smokejumpers and cargo droppers and conditioned upon, for takeoffs and landings, the smokejumpers wearing their protective clothing, including mask and headgear, and the cargo droppers using their harness as a safety belt.**
- d. The exemption from Section 121.117 is limited to those airfields and to those supplemental air carriers or commercial operators, including pilots and aircraft, that are specified in applicable Forest Service regulations, or the equivalent thereof.**

Petitions for non-emergency deviations to FAA Regulations must be submitted to the FAA for approval. Any petition to the FAA for further exemptions from the 14 CFRs must be proposed by the Assistant Director, Aviation, Washington Office.

NOTE: throughout the historical 1965 exemptions, where 91.205(b)(12) is referenced, this is a typographical error and should actually refer to (13).

30.21c – Reporting Requirements

Current FAA policy requires operators to report their public aircraft status when performing Forest Service operations. Use of these exemptions falls under the public aircraft operations rule.

30.22 – Department of Transportation Special Permit Authorization for Hazardous Materials

The Agency is a grantee to DOT SP-9198, concerning the transportation of hazardous materials in aircraft under exclusive direction and control of the agency, as specified in the Interagency Aviation Transport of Hazardous Materials Guide (NFES 1068).

The special permit authorization DOT SP-9198 and the Interagency Aviation Transport of Hazardous Materials Guide must be onboard all agency owned, contracted, and leased aircraft at all times.

The procedures established in the Interagency Aviation Transport of Hazardous Materials Guide will be utilized in the support of DOI, Forest Service, military, and cooperators that are party to DOT SP-9198.

Other modes of transportation, aircraft not under the exclusive direction and operational control of DOI or Forest Service, commercial passenger transport (scheduled commercial airline flights), and hazardous materials not specified in the Interagency Aviation Transport of Hazardous Materials Guide must comply with 49 CFR Parts 171-180.

30.22a – Training

All aircraft and personnel operating under the terms of the Department of Transportation Hazmat Exemption (DOT-SP 9198) special permit must be in compliance with the training requirements of the current Interagency Aviation Transport of Hazardous Materials Guide.

30.3 – Non-approved Aircraft and Pilots

30.31 – Non-federally Approved Aircraft (Wildland Fire)

Cooperator aircraft that have not been approved by USDA Forest Service/ Department of the Interior letter may be utilized on federal lands when and where the Cooperator is the protecting agency in a reciprocal or off-set agreement or when Cooperator lands are threatened and the state maintains operational control of the aircraft.

The following conditions apply for non-federally approved aircraft:

1. No Federal employees are allowed to ride on board the aircraft.
2. No Federal employee may be assigned to a position that exercises contractual control.

3. The aircraft are approved to have federal personnel load retardant at Federal airtanker bases, regardless of jurisdiction.
4. Federal personnel may provide aerial supervision (ATGS, ASM, HLCO, leadplane) under existing standard procedures and agreements.
5. The aircraft remain under state operational control regardless of the Agency affiliation of the firefighters directing the aircraft on an incident with state jurisdiction.
6. The aircraft flightcrews are approved to interact with federal dispatch personnel as long as the aircraft remains under the operational control of the state or for safety reasons.

Under emergency circumstances, where human life is immediately at risk by wildland fire on lands under Federal protection, a Federal Line Officer can approve the use of non-federally approved aircraft. This exemption must only take place when sufficient federal firefighting aircraft are not readily available to meet the emergency need. Federal Line Officers are encouraged to consult with their agency aviation management personnel to aid in decision-making.

As exemptions are exercised, they must be documented by the approving Federal Line Officer in accordance with their agencies guidance to include submitting a SAFECOM within 24 hours.

30.32 – Non-agency Pilots on Forest Service Working Capital Fund (WCF)/Contract Aircraft

When approved by the Branch Chief, Pilot Standardization, non-agency pilots may instruct and evaluate in Forest Service WCF or contract aircraft.

30.4 – All-hazard Response

All personnel involved with and assisting other agencies with all-hazard response should remain within the scope of their training, certification, and employment.

30.41 – Search and Rescue and Disaster Events

Although search and rescue is not considered an agency mission, personnel are involved from time to time. When agency aircraft become involved, procedures outlined in the applicable Forest aviation safety plan to respond to requests for search and rescue operations must be followed.

Agreements with emergency response agencies, along with proper planning, risk assessments, and briefing the mission prior to an event will significantly reduce risk and improve the odds of success.

The Agency with jurisdiction over local emergency response is usually responsible for search and rescue of overdue or missing person(s).

Pursuant to 16 USC 575, the Secretary of Agriculture is authorized to incur such expenses as may be necessary in searching for person(s) lost within the National Forests or to provide

transportation to person(s) seriously ill, injured, or who die within the National Forests to the nearest place where the sick or injured person(s) may be transferred to interested parties or local authorities.

The Agency accepts an all-hazard role as complementary to its overall land management mission. The Agency all-hazard response is based on the assumption that other agencies will fulfill their primary roles and responsibilities with National Interagency Incident Management System (NIIMS) qualified and trained people as outlined in the National Response Framework. The agency will conduct a thorough mission risk analysis of every aviation all-hazard request before committing agency aviation resources.

In all-hazard situations, Forest Service employees may need to ride in non-federally approved Federal, Tribal, State, or local agency, military, cooperator, commercial, or private aircraft. A Regional Forester or their designee must authorize employees to fly on non-federally approved aircraft throughout the duration of the response phase of the incident.

All deviations from Forest Service policy must be documented and submitted on a SAFECOM. Report to their Supervisor and the appropriate forest aviation office. Deviation from Forest Service policy must be the exception and should be framed by a risk management process which weighs the risk versus the benefit and provides risk mitigation, controls, and supervision.

30.42 – FEMA All-hazard Response

The Forest Service has no operational control or administrative/contractual authority over any non-Forest Service aircraft (such as, FEMA, FAA, Military, or other Federal, Tribal, State or local owned, operated, or contracted aircraft).

For operations under ESF4, Forest Service Government Aircraft may be mission assigned by FEMA. Mission assignments will come to ESF4 at the National Response Coordination Center (NRCC),

Regional Response Coordination Center (RRCC), and Joint Field Office (JFO). ESF4 will then place the appropriate resource orders through the standard ordering process.

The Forest Service maintains operational control when directing or managing a specific operation or mission tasked through the process outlined in the preceding paragraph. Forest Service personnel may provide aviation support for non-Forest Service aircraft provided they are trained and qualified within the Incident Qualifications and Certification System to perform the task/ job and formally tasked to do so through the ESF4 mission assignment process. Also refer to FSM 1590, Disaster and Emergency Operations and Homeland Security.

A Regional Forester or their designee shall authorize employees to fly on non-federally approved aircraft throughout the duration of the response phase of the incident.

30.5 – Employees on Leave Representing the Agency

Whenever an employee is engaged in an activity related to their official duties, regardless of their pay or leave status, they are conducting agency business and are therefore bound by the regulations of the Agency.

Agency employees shall not fly on unapproved aircraft related to their official duties when on annual leave, leave without pay, or volunteer status in order to circumvent agency policy.

Refer to the regulations regarding off-duty activities in accordance with the Standards of Ethical Conduct for Employees of the Executive Branch (5 CFR Part 2635.802-803).

30.6 – Personal Protective Equipment

Refer to the Interagency Aviation Life Support Equipment (ALSE) Guide, applicable contracts, and applicable operations plans and guides.

30.7 – Cooperator, Military, and Foreign Country Flight Operations

30.71 – Cooperators

All cooperator flight operations on Federal lands including federal lands protected by state agencies must be conducted in accordance with agency policy, applicable 14 CFRs, and aircraft flight manual/pilot operating handbooks.

Aircraft must be approved per chapter 40.

Pilots shall be approved per chapter 50.

30.72 – Department of Defense Aviation Assets

The Washington Office Deputy Chief or Regional Forester, through an agreement with Department of Defense (active and reserve), authorizes aviation assets on National Forest System lands. This must be in accordance with the Military Use Handbook and the Forest Service Aviation Military Use Plan.

The Regional Aviation Officers shall approve, in writing, the use of National Guard aviation assets on National Forest system lands in accordance with the Military Use Handbook and the Forest Service Aviation Military Use Plan.

Refer to FSH 5709.16, chapter 47.1 for aircraft approvals and Chapter 55.1 for flightcrew approvals.

30.72a – Military Flightcrews

Military flightcrews shall be briefed on Special Use Mission Tasks (bucket, long line, and other missions, as identified). The Washington Office aviation staff must coordinate these Special Use

Mission Task briefings. Special Use Mission Tasks included in the Commander's Task List must require an evaluation with the unit's Standardization Instructor Pilot prior to deployment.

30.73 – Federal Executive Agency (non-DOD) Aviation Assets

The Deputy Chief, State and Private Forestry must approve, in writing, the use of Federal Executive Agency (non-DOD) aviation assets.

Refer to FSH 5709.16, chapter 47.2 for aircraft approvals and chapter 55.2 for flightcrew approvals.

30.74 – Flight on Foreign Aircraft on Official Duty

The Agency is responsible to complete an aviation safety briefing, prior to assignment of employees to foreign countries.

Employees on official duty assignments in foreign countries may find it necessary to fly on foreign aircraft in the performance of their assignment. In such occurrences, employees must implement aviation safety and personal protective equipment (PPE) requirements as available. Examples include but are not limited to use of required PPE during helicopter flights, flight following, passenger briefings, and other actions that are within the scope, training, and experience of the employee.

Employees shall complete a risk assessment and mitigate any unacceptable risks.

Implementation of agency aviation requirements should not impact operations.

This does not apply to aircraft inspection/approval trips to foreign countries.

30.75 – Operations of Agency and Contracted Aircraft in Canada and Mexico

30.75a – Quick Strike Operations in Canada and Mexico

Quick strike operations are when agency owned, leased, and contract aircraft are ordered through normal procedures, generally through a multi-agency compact agreement, for an operation (generally within 5 miles/8 kilometers or more of the border) where the aircraft return to the U.S. at the end of the mission.

Refer to the specific appropriate agreement.

30.75b – Agency Owned and Leased Aircraft Operations in Canada

Agency owned and leased aircraft require a NAFTA (North America Free Trade Agreement) Authorization and an FAA Letter of Authorization (LOA) to operate and land in Canada. The FAA LOA is limited to Specialty Air Services (SAS) to conduct firefighting and/or forest fire management operations missions. The FAA LOA must be renewed annually.

The LOA for Canada has the following Limitations and Provisions:

1. Only essential crew members may be carried on board the aircraft. Air transportation is not authorized under this registration.
2. Prior to operations insurance must be obtained that meets Canada's standards of proof of insurance and will be carried on board the aircraft when operating.
3. A thorough inspection of the aircraft and special equipment must be made prior to each day's operation.
4. The FAA LOA, the Canadian authorization, and a copy of U.S. DOT Order 97-7-3 must be carried on board the aircraft while conducting these SAS operations.
5. This Letter of Registration must be presented for inspection upon the request of any authorized representative of the Administrator of the Federal Aviation Administration, Transport Canada Civil Aviation or of any State or municipal official charged with the duty of enforcing local laws or regulations.
6. A record of all field approved modifications (FAA Form 337) and Supplemental Type Certificates (STC) must be carried on board the aircraft while conducting these NAFTA Firefighting and/or Forest Fire Management SAS operations in Canada.
7. When maintenance requires the use of a maintenance facility in Canada, this maintenance must be performed at an approved maintenance organization (AMO).
- S8. survival equipment must be carried to satisfy Canadian Aviation Regulation (CAR) 602.61. This equipment includes provisions for shelter, water, fire, and signaling.

Only Authorized Aircraft listed on the LOA are authorized. Obtain a current copy of the LOA from the Washington Office, Aviation Business Operations Branch.

Only pilots listed on the FAA LOA are authorized to conduct SAS firefighting and/or forest fire management operations.

Flightcrew and aircrew members must have a current official US passport to meet the requirements for Canadian firefighting missions.

Refer to 34.5 for additional information regarding aerial firefighting operations conducted under border agreements.

30.75c – Agency Owned and Leased Aircraft Operations in Mexico

Reserved.

30.75d – Contract Aircraft Operations in Canada and Mexico

Contractors interested in participating in Canadian or Mexican firefighting or forest fire management SAS operations must submit their own application package to the FAA and to either Transport Canada or the Directorate General of Civil Aeronautics (Mexico). Instructions are contained in FAA Advisory Circular 00-60B.

If contractors are approved for firefighting or forest fire management SAS operations in either Canada or Mexico, notify the contracting officer responsible for the specific contract.

Refer to 34.5 for additional information.

30.8 – Land Use Policy Relative to Aviation Operations

Temporary aviation operations on Forest Service lands may be restricted due to Land Management Planning (LMP) direction. FAOs should coordinate with resource managers to identify areas of restriction when developing Operating Plans, Forest Aviation Management Plans, and Mission Aviation Safety Plans (MASPs).

30.81 – Land Management Plans

The regulation of aviation activities on or over Forest Service managed lands is solely dependent on Land Management Plan (LMP) direction and any applicable 14 CFR.

30.82 – Aquatic Invasive Species Prevention

Aquatic invasive species (AIS) are easily transported in a variety of ways (such as, helicopter buckets, fixed tank helicopters, and SEATs utilizing open water sources, engines and tenders, and other water handling equipment). Agency aviation personnel should become knowledgeable in the preventive measures associated with the prevention of the spread of aquatic plants and invertebrates. Aviation Managers must consult with local unit representatives to acquire information associated with: contaminated water sources, approved water sources, and other pertinent information.

Refer to the current version of the Interagency Guide to Preventing Aquatic Invasive Species Transport by Wildland Fire Operations (PMS 444) for specific prevention and decontamination information.

30.83 – Fire Chemicals

For operational guidelines on use of fire chemicals, refer to Implementation Guidance for the Nationwide Aerial Application of Fire Retardants on National Forest Systems Lands. Refer to www.fs.fed.us/fire/aviation/.

30.83a – Retardant Avoidance Areas

Additionally, aerial retardant drops are not allowed in mapped avoidance areas for threatened, endangered, proposed, candidate or sensitive species except in cases where human life or public safety is threatened and retardant within an avoidance area could be reasonably expected to alleviate that threat. Maps identifying all retardant avoidance areas (including waterways) can be accessed at: <https://www.fs.fed.us/managing-land/fire/chemicals>. These maps must be provided to dispatch centers, incident commanders, and incident aviation resources.

30.9 – Incident Air Operations

Incident air operations include initial attack, extended attack, and large fire support, as well as all-hazard response. Incident aircraft are used for tactical and logistical needs. Aircraft can be effective tools, but aircraft only support ground-based operations. Tactical operations plans should not rely solely on aircraft for success; environmental conditions, fuel, and mechanical systems can impede aircraft operations.

Incident management teams should be delegated certain aviation responsibilities from the local line officer. These include initial attack responsibilities (to include aerial response), incident aerial ignition approval, approval of non-federal personnel and Senior Executive Service personnel during incident reconnaissance.

Incident management team aviation personnel must coordinate with the local Forest or unit and regional aviation personnel. The Forest/Unit Aviation Officer is the primary contact for aviation operations on local units. Responsibilities for the Forest/Unit Aviation Officer are located in FSM 5704.36b.

Forest/Unit Aviation Officers must provide an in-briefing to all incoming incident management team personnel assigned to incident(s) on their Forest/Unit, covering the content of 31.17 – Aircrew Orientation Briefings.

The Regional Aviation Officer is responsible for all regional aviation activities, and the Regional Aviation Safety Manager is responsible for all aviation safety. Incident management team aviation personnel must contact the Regional Aviation Officer, or designee, upon arrival in the region.

An Air Operations Branch Director (AOBD) is required or must be ordered for Type 1 or 2 incidents, and will be considered for Type 3 or 4 incidents with complex air operations to include, multiple jurisdictions, a mix of fixed-wing and helicopter aircraft, wildland interface, and air space issues such as geographic area boundaries, military and special use areas and military training routes. On smaller less complex incidents, supervision of air operations is the responsibility of the Operations Section Chief or the Incident Commander.

Air operations branch positions such as Air Support Group Supervisor, Air Tactical Group Supervisor, Helibase Manager, and other support positions must be ordered to provide the necessary management oversight and specific technical and operations expertise to ensure safe and effective operations.

30.91 – Incident Air Operations Positions

Refer to the Wildland Fire Incident Management Field Guide, Chapter 3 for additional positions and detailed position responsibilities.

30.91a – Air Operations Branch Director (AOBD)

The AOBD supervises all air operations activities associated with the incident. The AOBD reports to the Operations Section Chief and is primarily responsible for providing aviation expertise and oversight, preparing the air operations portion of the Incident Action Plan (IAP), implementing its aviation elements of the IAP, and providing logistical support to aircraft operating on the incident. The AOBD must be included in incident management team operational planning. The AOBD supervises the Air Support Group Supervisor and Air Tactical Group Supervisor.

30.91b – Air Support Group Supervisor (ASGS)

The ASGS is responsible for planning and oversight of incident aircraft support functions (helibase, helispot and fixed-wing Air Bases). The ASGS reports to the AOBD. In the absence of the AOBD, the ASGS will be the primary aviation point of contact. The ASGS supervises the helibase manager and fixed-wing base manager.

30.91c – Air Tactical Group Supervisor (ATGS)

The ATGS is responsible for managing the resources within incident airspace and coordinating the fixed-wing and helicopter aircraft operations over an incident. The ATGS is an airborne firefighter who coordinates, assigns, and evaluates the use of aerial resources in support of incident objectives. The ATGS reports to the AOBD or to the Incident Commander or Operations Section Chief in the absence of an AOBD. The ATGS supervises aerial supervision modules/lead planes and the helicopter coordinator.

Refer to NWCG Standards for Aerial Supervision (NWCG SAS) for ATGS operations.

30.91d – Helicopter Coordinator (HLCO)

The HLCO coordinates, directs, and evaluates tactical/logistical helicopter operations. The HLCO position is typically activated on complex incidents where several helicopters are assigned. A HLCO can increase the span of control of the ATGS by managing helicopters over an incident. The HLCO may provide sole aerial supervision on an incident where only helicopters are assigned, otherwise ATGS is required. When an ATGS is assigned, the HLCO is a subordinate position to the ATGS. If no ATGS is present, the HLCO works for the IC, AOBD, or designee.

Refer to NWCG Standards for Aerial Supervision (NWCG SAS) for HLCO operations.

30.91e – Leadplane (LPIL)

Leadplanes make trial runs over the potential drop zone to determine the safe exit for the airtanker considering terrain, smoke, wind, and other factors. The Leadplane checks wind, smoke conditions, and topography, leads airtankers to targets, and supervises their drops. The low level capabilities of the Leadplane enhance the safety and effectiveness of airtanker operations in often turbulent, smoky, and congested fire environments. Leadplanes are a national resource. The Leadplane pilot is qualified and authorized for low level operations. A Leadplane Pilot is not recognized in Incident Command System (ICS), but is recognized in the Forest Service Fire and Aviation Qualifications Guide.

Refer to the NWCG Standards for Aerial Supervision (NWCG SAS) for Leadplane operations.

30.91f – Aerial Supervision Module (ASM)

An ASM is a two-person crew functioning as a LPIL and AITS from the same aircraft. The ASM crew is qualified in their respective positions and has received additional training and authorization to perform this mission. An ASM can be utilized as a Leadplane, ATGS, or both, depending on the needs of incident management personnel. An ASM consists of an LPIL/ATP and AITS.

30.91g – Air Tactical Pilot (ATP)

The ATP is a qualified Leadplane Pilot who has received specialized training and authorization to function as an ASM crew member. The ATP functions as the Leadplane Pilot and utilizes Crew Resource Management (CRM) skills to evaluate and share the incident workload with the AITS.

30.91h – Air Tactical Supervisor (AITS)

The AITS is a qualified ATGS who has received additional specialized training and authorization to function as an ASM crew member. The AITS utilizes CRM to evaluate and share the incident workload with the ATP when configured as an Aerial Supervision Module (ASM).

30.91i – Helibase Manager (HEBM)

Ensures the efficiency and safety of helibase operations by providing supervision, support, communications, and logistical management at the helibase. The HEBM reports to the ASGS. The HEBM supervises helicopter managers, aircraft base radio operators, deck coordinator, mix-master, and other positions.

30.91j – Fixed-wing Base Manager (FWBM)

Ensures the efficiency and safety of fixed-wing operations by providing supervision, support, communications, and logistical management at a fixed-wing base. Fixed-wing bases are

primarily established locally in the form of airtanker bases or air bases. This Fixed-wing Base Manager (FWBM) reports to the local unit aviation officer, or designee.

Occasionally, incidents establish a separate fixed-wing base. The incident FWBM coordinates with airport management, ATGS, ATB manager, and Forest or unit aviation personnel. The incident FWBM reports to the ASGS. The incident FWBM supervises aircraft managers; aircraft base radio operators, parking tenders, and other positions.

Other incident aviation positions should be filled as necessary to perform specific functions and maintain supervision and oversight.

30.92 – Incident Air Operations Management and Supervision Requirements

Incident Air Operations Management and Supervision Requirements				
Incident Situation	Air Operations Branch Director	Air Support Group Supervisor	Air Tactical Group Supervisor	Helibase Manager
Type 1 or 2 Incident Management Team with complex air operations as defined below.	Required, or must be on order.	Required, or must be on order.	Refer to the NWCG Standards for Aerial Supervision for additional requirements for aerial supervision positions	Required when: HEB1 if 6+ helicopters assigned HEB2 if 1-5 helicopters assigned
Type 3 and 4 Incidents	Not Required. Should be considered for complex air operations	Not Required. Should be considered for complex air operations	Refer to the NWCG Standards for Aerial Supervision for additional requirements for aerial supervision positions	Required when: HEB1 if 6+ helicopters assigned HEB2 if 1-5 helicopters assigned

Definitions of terms:

1. **Required, or must be on order:** Air Operations supervisory resource(s) should be on the incident and in command of the applicable incident aviation resources when air operations are being conducted.
2. **Complex Air Operations:** including but not limited to, multiple jurisdictions, a mix of fixed-wing and helicopter aircraft, wildland interface, and air space issues such as geographic area boundaries, military and special use areas and military training routes.

Refer to the Wildland Fire Incident Management Field Guide (PMS 210) for additional incident air operations information.

30.93 – Incident Airspace Coordination

30.93a – Incident Temporary Flight Restrictions (TFR

TFRs are controlled by the FAA. TFRs are an area of airspace (defined both laterally and vertically) that has been temporarily or partially closed by the FAA to non-participatory aircraft for a specified period of time. TFRs may be requested in response to the aviation safety need for separation of aircraft for disaster or incident activities. All aircraft must receive a clearance from the controlling agency requesting the TFR or its authorized representative prior to entering the TFR utilizing the FTA communications protocols. TFR's are requested through dispatch centers following established ordering procedures. The FAA will issue the TFR and post a Notice to Airmen (NOTAM).

Multiple "Areas of Operation" (AO) can occur within the TFR at the same time with different block altitudes for aircraft. FTA communications protocols will be utilized within the TFR and AO's. An AO resembles a fire traffic area but is not the same. Aerial Supervisors must develop holding points, initial points, flight routes, virtual fences, and check points as appropriate to maintain adequate separation of aircraft.

Temporary Flight Restrictions should be ordered if the air operations on the incident meet any of the following criteria:

1. Length of operation: Extended operations of more than one operational period are anticipated. In densely populated areas or areas with complex airspace issues, TFRs are recommended to be ordered on initial dispatch.
2. Multiple aircraft are operating on or near the incident. This may include non-incident aircraft.
3. Congested airspace involved: Operations are in the vicinity of high-density civil aircraft operation (airports), Military Training Routes or Special Use Airspace.
4. Incident size and complexity: The incident rapidly grows in size or complexity.
5. Potential conflict with non-operational aircraft: The incident is in or near Visual Flight Rules (VFR) routes, airport approach or departure paths, or known general aviation routes.
6. Extended operations on Military Training Routes.
7. Extended Operations within Special Use Airspace.
8. Incident aviation management staff must make every effort to consolidate TFR needs, avoid modifications unless absolutely needed and request cancellation of TFRs no longer needed.

Refer to the NWCG Standards for Interagency Airspace Coordination for specific information.

30.93b – Incident Management Team Initial Attack Area

Incident management teams (IMT) and Forests or Units must have a clear understanding of aerial initial attack responsibilities and the defined initial attack boundaries. The host Forest or Unit must include discussion about aerial initial attack during the team in-briefing. The incident TFR is a common method to define an IMT's initial attack area.

30.93c – Federal Aviation Administration Temporary Towers and Airport Closures

Agency aviation management, prior to ordering an approved Federal Aviation Administration (FAA) Temporary Tower, must validate and document the need. This must be a joint decision between the local Forest or Unit Aviation Officer, Incident Management Team, and the FAA. Local Airport managers, pilots and aircraft managers will also be consulted.

Approved FAA Temporary Towers must be activated to provide advisories on the ingress and egress to the airport to enhance safety. The first priority for temporary towers must be airports supporting incident aviation operations. Secondary priority will be off airport incident aviation operations.

Situations that increase the hazards to both participating and non-participating aircraft may include:

1. Operations being conducted from, or in proximity to, an uncontrolled airport;
2. A high volume of aircraft traffic anticipated in close proximity to each other;
3. A high frequency of non-incident aircraft using common airspace;
4. Special events being conducted adjacent to the incident or at the airport where incident aircraft are operating;
5. Visibility conditions such that flight operations would be enhanced through use of certified controllers; or,
6. Risk assessment of involved airspace indicates the need for Air Traffic Control.

The proximity of an incident to an airport, or the volume of aviation activity generated at an airport by an incident may necessitate the closure of an airport. An airport can only be closed by its "owner", which may be a private citizen, a municipality, State or other entity. A request to close an airport must be a joint decision between the local Forest or Unit Aviation Officer and Incident Management Team.

Aviation safety or other valid concerns should be described in the request for closure. VFR airport traffic is allowed inside a TFR for aircraft landing and departure under the provisions of the 14 CFR 91.137.

Refer to the NWCG Standards for Airspace Coordination for specific information.

30.94 – Incident Emergency Response Planning

The incident Air Operations Branch Director must develop written plans for immediate response to aircraft accidents on the incident, missing or overdue incident aircraft, incident aerial emergency medical response, and incident aerial emergency medical evacuation. Response to these situations must be coordinated with the local host unit and the incident medical unit.

Immediate response to the situations listed above requires planning and onsite training. The AOBD and incident aviation staff must plan, brief, and train for these potential situations.

A “ready alert” helicopter must be designated to respond to any potential situations on the incident. The ready alert helicopter should continue to perform standard fire suppression missions and not be held for this anticipated situation.

The ready alert helicopter, helicopter manager, medical personnel, and equipment will be identified in the incident action plan for each operational period. A second ready alert helicopter should be designated if the primary ready alert is out of service, not in position or for other reasons.

30.95 – Limited Aviation Resources

Incident aircraft and personnel are often in high demand and orders for certain resources may be unable to fill (UTF). Incidents must coordinate with local forests and units, Regional aviation staff and nearby incidents to facilitate the most efficient use of scarce or critical aviation resources.

Sharing or “Lend/Lease” is an effective and efficient way of managing resources that are either unavailable, or where incidents only need identified resources for a limited time. Lend/Lease must be considered on every incident. Lend/Lease can occur between incidents or between units and incidents. The entities involved will agree to specific aircraft or personnel to be loaned, duration, cost accounting, and incident codes.

Resource orders may not be initiated, but notification of the lend/lease must be communicated to the local dispatch center to assist in the coordination. Aviation summary reports will document lend/lease use and costs by the receiving incident.

All shared or lend/lease aircraft must be provided with a briefing prior to departure to the other or next incident. The briefing must contain all of the items in the Interagency Aircraft Dispatch Form and any other pertinent information essential to aircraft safety and effectiveness.

30.96 – Incident Special Use Flights for Senior Federal Officials, Members of Congress, and Non-federal Travelers

Senior Federal Officials, members of Congress, and non-Federal travelers flying on incident aircraft under Forest Service operational control, regardless of the mission, must be approved on a Day Trip Authorization by the line officer sponsoring the flight. Approval of these special use flights may be delegated to the assigned incident commander in the incident delegation.

A Day Trip Authorization (FS 5700-12) must be completed, signed by the Line Officer sponsoring the flight, and retained in the incident documentation package.

Any non-Federal travelers assigned to the incident (resource order) are exempt from this policy.

30.97 – Aerial Ignition on Incidents

Planning an implementation of aerial ignition on incidents must be coordinated with the local Forest or Unit. Incident management teams must require an aerial ignition plan which must include the following elements.

1. Review and approval list – Who prepared the plan, reviewed by the PSDO/Helitorch Manager, Operations Section Chief and approved by the Incident Commander. Coordinate with the local line management in accordance with the Delegation of Authority (DOA).
2. Objectives – detailed description of burn objectives in terms of size, fire intensity, containment, and meeting incident objectives.
3. Burn Area – Division/Branch, location, estimated size, known flight hazards.
4. Organization Chart – Burn Boss, Holding Supervisor, Ignition Specialist, manager, pilot and other personnel as filled.
5. Aircraft information – N number, make and model, vendor name.
6. Aerial Ignition Device – Make and model.
7. Pre-burn reconnaissance flights.
8. Communications – frequencies and communications plan.
9. Helibase and helispot location information – Name, Lat/Long, elevation, description.
10. Ignition Pattern.

The Interagency Aerial Ignition Guide must be used in planning and execution of all aerial ignitions.

31 – Flight Planning and Flight Management

Before beginning a flight, the flightcrew and aircrew will familiarize themselves with the mission requirements, procedures, and rules.

For related information, refer to FSM 5703.4 and 5711.

31.1 – Flight Preparation

Reserved.

31.11 – Equipment

31.11a – Mobile Electronic Device Use

Flightcrew and aircrew use of mobile electronic devices for any purpose not directly related to safety of flight or mission use is prohibited during aircraft operations.

31.11b – Aviation Data, Images, and Voice Recordings

Commercial filming or videotaping (for example, filming for feature films, reality shows, documentaries, television specials, etc.) of aviation operations or assets on National Forest System lands is governed by 36 C.F.R. Part 251 and U.S. Forest Service Manuals 1600 and 2700, and requires the filming entity to apply for, and obtain, a special use authorization prior to the start of any filming, or associated activities.

Any filming, or associated activities, occurring during aviation operations on National Forest Systems, pursuant to a properly acquired special use authorization may be limited or prohibited during a fire fighting or incident support situation at the discretion of the Incident Commander.

Aviation data, images, and voice data collected or stored from radios, sensors, phones, cameras or other audio and image recording devices are the property of the of the USDA Forest Service while on contract.

This will include but not be limited to, Additional Telemetry Units, Automated Flight Following, and Operational Loads Monitoring data and data collected or stored from EO/IR sensors, any cameras, radios or other audio and video recording devices owned by the contractor, contractor representatives, or the Forest Service. Use of the audio and image data outside of the scope of the contract or employment is prohibited.

31.11c – Agency Flightcrew

The Agency must provide employee flightcrew members the equipment required by the 14 CFR. However, pilots flying agency missions are responsible for ensuring:

1. That a flight kit (bag) incorporating the necessary equipment, publications, and charts required by the 14 CFRs is complete, current, and on board the aircraft. Electronic flight bags are authorized.
2. That they possess sufficient personal equipment to perform their preflight duties and operational functions on board the aircraft during day and night operations.

31.11d – Agency Aircrew

The Agency must provide employee aircrew members the equipment required by agency and interagency policy and guides.

31.11e – Contract Flightcrew

Contracted flightcrew members are required to meet the minimum requirements in FSM 5700, FSH 5709.16, Chapter 50, and the applicable aircraft services contract.

31.11f – Additional Aircraft Equipment

Agency aircraft must be equipped with a survival kit, applicable to the flight environment. The contents of the kit must comply with the most current ALSE.

31.11g – Personal Survival Equipment

Agency flight and aircrew members should consider utilizing a personal survival kit, applicable to the flight environment. The recommended contents for the kit can be found in the most current ALSE.

31.12 – Instrument Meteorological Conditions

Pilots flying agency missions must use only multi-engine or turbine powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (14 CFR), Part 135, Part 91, and Part 61, as referenced in FSH 5709.16 and applicable contract requirement. Additional requirements:

1. When planning the transport of passengers with IMC forecast, the pilot-in-command should consider utilizing a second-in-command.
2. Low-level flight is prohibited in IMC.

31.13 – Night Flying

Pilots flying agency missions must use only multi-engine or turbine powered single-engine aircraft for night flights that meet the applicable requirements in 14 CFR, Part 91 as referenced in FSH 5709.16 or applicable contract requirements. Additional requirements:

1. Reciprocating engine powered single-engine airplane flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with 14 CFR, Part 91.
2. Night flights will only be accomplished by pilots that are instrument rated and instrument current.

3. Helicopters equipped with Night Vision Devices (NVDs) will operate in accordance with the agency's NVD Operations Plan.
4. Agency syllabus-directed night VFR flights are authorized in approved aircraft.

31.14 – Mission Briefings

Prior to departing on a mission, the following information must be briefed in order based on the Interagency Aircraft Dispatch Form, or equivalent form that includes the information listed below:

1. Incident/Project Name;
2. Date;
3. Time;
4. Order #;
5. Descriptive Location;
6. Latitude (Degrees Decimal Minutes);
7. Longitude (Degrees Decimal Minutes);
8. Base Bearing and Distance;
9. Frequencies - Must include Frequency Name, Frequency Number and Rx/Tx Tones if applicable;
10. Air Tactics (Air to Air FM). Victor (Air to Air AM);
11. Air to Ground (FM);
12. Ground Tactics (FM);
13. Command (FM); and
14. Comments/Remarks.

31.15 – Mission Debriefings

Flightcrew, aircrew, mission crew, and dispatch (if available) must accomplish a debriefing/after action review (AAR) after every flight or mission as appropriate. At a minimum AARs/debriefs must include:

1. What was planned?
2. What actually happened?

3. Why did it happen?
4. What can we do next time?

Mission Debriefings/AARs must be open and honest, and have sufficient detail and clarity, so everyone understands what did and did not occur and why.

Most importantly, participants should leave with a strong desire to improve their proficiency.

1. An AAR should be performed as immediately after the event as possible by the personnel involved.
2. The leader's role is to ensure skilled facilitation of the AAR.
3. Reinforce that respectful disagreement is OK. Keep focused on the what, not the who.
4. Make sure everyone participates.
5. End the AAR on a positive note.

31.16 – Performance Planning

The flightcrew will evaluate aircraft performance, departure, enroute and approach data, notice to airmen (NOTAM), Temporary Flight Restrictions (TFRs), and appropriate flight information publications.

Pilots-in-command must:

1. Ensure the aircraft is properly loaded and fueled.
2. Compute weight and balance to ensure aircraft is within weight and balance limitations considering weight, density altitude, and available runway length to determine safe departures and arrivals and ensure all aircraft operations are within manufacturer's allowable gross weights, the performance criteria for the aircraft, and flight manual limitations.
3. Coordinate with the Flight Manager regarding passenger boarding and deplaning requirements. Agency pilots may serve as the Flight Manager.
4. Prior to the flight, ensure that a Flight Risk Assessment is completed for the mission (refer to FSH 5709.16, Chapter 20, for further direction).
5. For helicopter operations, pilots-in-command must compute takeoff performance based on the applicable Hovering In Ground Effect (HIGE) and Hovering Out of Ground Effect (HOGE) parameters to determine safe departures and arrivals.

31.17 – Aircrew Orientation Briefings

All Forests and Units must create an Aircrew/Pilot Orientation Briefing Package. The Aircrew/Pilot Orientation Briefing Package serves as a source of information to provide pilots, aircrews, and Incident Management Teams. Elements of the briefing package should include:

1. Leaders' intent.
2. Local frequencies and their use (to include map if available).
3. Contacts, name title, phone (may include vendor information).
4. Local sunrise/sunset charts.
5. Local airport information (to include a map).
6. Local lodging information.
7. Local water sources/dip sites (name, latitude and longitude, ownership, hazards, elevation, contact information).
8. Helispots (name, latitude and longitude, map or aerial photo).
9. Map depicting MTRs and Special Use Airspace.
10. IA size-up card.
11. Local medical evacuation information (including nearest burn and trauma centers).
12. Local Search and Rescue authority, procedures, and contacts.
13. Aviation Hazard Map (map and description).
14. Retardant Avoidance Area Map.
15. Airport crash rescue procedures.
16. Map and description of jettison areas.
17. Local flight following procedures (AFF and/or radio contact).
18. Aviation Operations Plan.
19. Special considerations.

31.18 – Aviation Hazard Maps

The National Wildland Fire Coordinating Group (NWCG) Geospatial Subcommittee (GSC) provides standards for creating Aviation Hazard Maps. For more details on the standards, training, resources, and tools, refer to their website: <https://www.nwcg.gov/committees/geospatial-subcommittee>.

31.2 – Flight Managers

All helicopter and fixed-wing flights must have a Flight Manager assigned.

31.21 – Fixed-wing Flight Manager and Fixed-wing Flight Manager Special Use

A Fixed-wing Flight Manager must be designated at the mission originating departure point for all flights, in order to fulfill the duties outlined in 31.21b. If no Fixed-wing Flight Manager has been assigned, the agency pilot-in-command must be designated as the Fixed-wing Flight Manager.

The Fixed-wing Flight Manager works jointly with the PIC and passengers to ensure safe, efficient flight management on Point-to-point Flights.

The Fixed-wing Flight Manager Special Use works jointly with the PIC and aircrew members to ensure safe and efficient flight management of special use mission flights.

31.21a – Fixed-wing Flight Manager Certification

The designated Fixed-wing Flight Manager or Fixed-wing Flight Manager Special Use must have completed the applicable Fixed-wing Flight Manager training curriculum. Registration and access to the courses is at: <https://www.iat.gov/>.

31.21b – Fixed-wing Flight Manager Duties

The Fixed-wing Flight Manager shall:

1. Coordinate with scheduling office, pilot, and users on flight planning.
2. Complete required administrative and operational forms as required for the mission.
3. Ensure required personal protective equipment is available and used correctly, as required by the ALSE guide.
4. Ensure the pilot accomplishes a preflight passenger briefing prior to the flight, and perform a boarding briefing.

5. Verify that the aircraft and pilot are approved and authorized for the type of operation to be conducted by checking the pilot card, aircraft card, and/or cooperator approval letter.
6. Ensure flight following and resource tracking is performed.
7. Ensure the pilot completes the weight, balance, and manifests.
8. If onboard, assist the pilot in aerial hazard identification.
9. Report any deviations from planned flight or normal operations immediately using SAFECOM.
10. When requested, assist pilot in loading and unloading passengers and cargo.
11. If applicable, ensure flight payment documents are accurate and submitted according to direction found in procurement document.
12. Ensure aviation transport of hazardous materials is in compliance with DOT special permit.

31.22 – Helicopter Manager

Refer to the Interagency Helicopter Operations Guide (IHOG) Chapter 2: Personnel, IV.A., for Helicopter Manager roles and responsibilities.

31.3 – Flight Records

The originating unit must retain mission records on file locally. For records management, refer to FSM 5716 and FSH 5709.16, chapter 16.

31.31 – Weight and Balance Computations

A weight and balance computation must be completed prior to each flight and retained for 30 days.

31.32 – Fixed-wing Performance Planning and Manifest

Performance planning must be conducted.

For aircraft carrying passengers or cargo, a load manifest (Aircraft Flight Request/Flight Schedule or NWCG Passenger/Crew and Cargo Manifest, PMS 245) must be prepared before each takeoff. A copy must be retained onboard the aircraft and one copy must be retained by the originating unit.

31.33 – Helicopter Performance Planning, Load Calculation, and Manifest

Performance planning must be conducted.

A load calculation (Form 5700-17/OAS Form 67, Interagency Helicopter Load Calculation) must be utilized. A copy must be retained onboard the aircraft and one copy must be retained by the originating unit.

Refer to the Interagency Helicopter Operations Guide (IHOG) Chapter 7: Helicopter Load Calculations and Manifests, IV for instructions.

31.4 – Smoking

Certain areas on and near aircraft staging areas are designated “NO SMOKING” and should be clearly signed. In the absence of such designations, the following applies:

1. Ground: Smoking is not allowed within 50 feet of any parked aircraft, refueling vehicles, or any flammable or chemical storage area.
2. Aircraft in Flight: Smoking is not allowed on agency or contract aircraft at any time.
3. Electronic Cigarettes: The use of E-cigarettes (vaping) is prohibited within 50 ft. of the aircraft, and prohibited in flight.

31.5 – Aviation Fuel

The PIC is responsible for all fueling operations.

31.51 – Purchasing Fuel

If Department of Defense contracted fuel is available at an airport, agency employees are required to purchase this fuel for agency Working Capital Fund (WCF) and leased aircraft.

Defense Logistics Agency (DLA) Aviation Into-Plane Reimbursement (AIR) cards are the primary acquisition means for aircraft fuel purchase for WCF agency-owned, leased, and contract turbine aircraft. Usage of DLA contract fuel vendors can provide a savings of retail turbine fuel costs.

The Forest Service must comply with DLA policy regarding DLA established priority use for fuel resources. Pilots operating WCF agency-owned, leased, and contracted aircraft must purchase fuel from aviation fuel resources in the following order:

1. Directly from the military.
2. DLA contract fuel vendor.
3. Fuel vendor that is not a DLA contract but will accept the AIR Card as payment.

Deviation from the order of aviation fuel resource priority may be used on a case-by-case basis to maintain fire response capability. Compliance with priority use will resume as soon as possible.

Refer to the Forest Service AIR Card Users Guide for detail information.

31.52 – Fuel Hazards

Aviation grade fuels are subject to the hazardous materials regulations of the Department of Transportation (DOT).

The Material Safety Data Sheets (MSDS) contain specific information for aviation fuels regarding firefighting techniques and Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and DOT regulations. The MSDSs are available from the local fixed-base operator (FBO) and/or the bulk fuel supplier.

31.53 – Fuel Transfer and Storage

Forest Service employees shall follow the most recent recommended fuel transfer and storage procedures that are contained in the National Fire Protection Association publications NFPA, Standard for Tank Vehicles for Flammable and Combustible Liquids (NFPA 385), Storage of Flammable and Combustible Liquids on Farms and Isolated Sites (NFPA 395), and Standards for Aircraft Fuel Servicing (NFPA 407). All Forest Service owned and maintained aviation fuel storage tanks must meet the relevant parts of NFPA 418 for the location of storage facilities. Units should utilize the most current available version of these publications.

Refer to Forest Service Aircraft Inspector Guide.

31.54 – Refueling Systems/Methods

Refer to Forest Service Aircraft Inspector Guide.

31.54a – Single-Point Refueling

Fuel is fed into the aircraft through high-pressure hoses at a single fueling point located on the aircraft. Generally use single-point fueling because the fumes escaping are exiting through the fuel vents, cutting down on the amount of vapors available to support combustion.

31.54b – Open Port/Over-the-Wing Refueling

Although open port/over-the-wing refueling is the most common method used throughout agency aviation operations (including by interagency cooperators) extreme precautions must always be taken when engaged in, or operating near, “open port” or over-the-wing fueling, because:

1. There are increased fuel vapors present due to exposed raw fuel meeting the air between the nozzle and filler hole.

2. The chance of fuel spilling is much greater with open, over-the-wing fueling. The consequence of ignition is much greater than with the closed system from both the raw fuel and fuel vapors.

31.54c – Rapid Refueling for Helicopters

Helicopter rapid refueling must be accomplished in accordance with the interagency helicopter contract standards, all applicable FAA standards, and National Fire Protection Association standards for rapid refueling in NFPA No. 407. Aircraft fuel servicing must be followed and no passengers may be on board during fueling operations.

31.6 – Aviation Transport of Hazardous Materials

Refer to 30.22 and the Interagency Aviation Transport of Hazardous Materials Guide.

32 – Flight Dispatching and Flight Following

Agency flight plans are the responsibility of the originating dispatch office and are documented on an Aircraft Flight Request/Schedule.

Flight following is the responsibility of the originating dispatch office and will remain so until transferred through a documented, positive handoff.

It is the pilot's responsibility to close out a flight plan.

If an aircraft is overdue, it is the receiving dispatcher's responsibility to initiate aircraft search and rescue actions.

Also reference Agency Flight Plans and Flight Following and Responsibilities in Chapter 50 of the National Interagency Mobilization Guide.

Incident Missions:

1. Dispatch must complete an Interagency Aircraft Dispatch Form and send to the appropriate flight manager or PIC.
2. The Flight Manager and the PIC shall collaborate to complete a Flight Risk Assessment Tool (FRAT) prior to the flight.

Non-incident Missions:

1. The flight manager and the PIC must collaborate to complete a Flight Risk Assessment Tool (FRAT) prior to the flight.
2. Refer to the US Forest Service Administrative Use of Aircraft Guide.

32.1 – Latitude and Longitude Standard

The aviation standard for communicating latitude and longitude must be: Degrees Decimal Minutes (also known as Degrees Minutes, Decimal Minutes, or Degrees Minutes Tenths), 48°36.12'N 114°08.12'W. Ground units must ensure their GPS is set to Degrees Decimal Minutes before providing coordinates to aircraft.

32.2 – Dispatching

32.21 – General

All flights (other than scheduled commercial air carrier flights and UAS flights operating under Part 107 or USFS/DOI blanket COA authority) will be arranged by a qualified aircraft/aviation dispatcher, appropriate aviation manager, and/or an aircraft/aviation dispatch trainee under the direct supervision of a qualified aircraft/aviation dispatcher, and approved at the appropriate management level.

Refer to 36.6 for flight arranging authority procedures for all UAS operations.

Refer to the appropriate Mobilization Guide to establish a method of flight following for fire and non-fire incidents.

The originating unit must retain flight records on file locally. For records management, refer to FSH 5709.16, chapter 16.

32.22 – Aircraft/Aviation Dispatchers

All aircraft (except sUAS; refer to 36.62 for additional requirements for sUAS operations) should be dispatched by a qualified aircraft/aviation dispatcher or under the direct supervision of a qualified aircraft/aviation dispatcher. If a qualified aircraft/aviation dispatcher is not immediately available, a qualified initial attack dispatcher (IADP) may dispatch aircraft. Aircraft/aviation dispatchers must meet the training, currency, and qualification requirements in the Forest Service Fire and Aviation Qualifications Guide and the PMS 310-1, and complete the aircraft/aviation dispatcher courses in IAT.

32.23 – Administrative Use of Aircraft Flight Requests

Refer to the Forest Service Administrative Use of Aircraft Guide.

32.24 – Mission Flight Requests

All flight requests for mission flights must follow the National Interagency Mobilization Guide, Chapter 50, Geographic Area Mobilization Guide, or Forest Aviation Management Plan, as applicable.

32.25 – Non-Incident Related Flight Requests

Follow local procedures.

32.26 – Pilot-in-command Duties Relative to Flight Dispatching and Flight Following

1. Flight Safety: The pilot-in-command has the authority to amend the flight plan when, in the pilot's opinion, the flight cannot continue safely or efficiently.
2. All Flights: The pilot-in-command is responsible for the preflight planning and flight operations in compliance with the applicable 14 CFRs and agency direction in FSM 5700 and this Handbook. The pilot-in-command (or designee) is also responsible for:
 - a. Providing the originating dispatcher with complete details of the proposed flight, including time, route, and destination for unit-initiated firefighting or special use missions.
 - b. Notifying the originating dispatcher using the following standard script:
 - (1) Call Sign.
 - (2) Departure Location.
 - (3) Number of People (including the Pilot) on board.
 - (4) Fuel on board (hours).
 - (5) Estimated time enroute (ETE).
 - (6) Destination.
 - (7) Automated Flight Following confirmation with dispatch.
 - (8) Advising the originating dispatcher's office or enroute dispatcher when any delay will be greater than 30 minutes.
 - (9) Checking in, based on agreed upon protocols on the flight request form, by phone or radio.
 - (10) Reporting the termination of the flight, based on agreed upon protocols on the flight request form, through the nearest Forest dispatch office or directly to the originating dispatch office by telephone.
3. Flights Under Visual Flight Rules: Pilots-in-command of flights conducted under FAA flight plans for Visual Flight Rules (VFR) are required to report departure and arrival information, number of passengers, positive AFF, Fuel, estimated time

enroute, and any extensive delay of one hour or more to a dispatch office. The originating dispatch office is advised that the flight will be conducted under a filed FAA flight plan. Provide the estimated time of departure (ETD), the estimated time of arrival (ETA), and reporting any changes in the resource order, manifest, or planned flight. Reporting must be completed by the most expeditious means to the originating dispatch office during their hours of operation. During periods when the originating dispatch office is closed, the pilot-in-command accomplishes required reporting by advising the answering service or by using other means available to ensure the message has been relayed.

4. Flights Under Instrument Flight Rules: Pilots-in-command of flights conducted under Instrument Flight Rules (IFR) are not required to report to an agency dispatch office, but a courtesy call using the standard briefing script in 2.b. above is encouraged.

32.27 – Originating Dispatcher

The originating dispatcher is responsible for:

1. Notifying the receiving dispatcher of the flight schedule, aircraft identification number, pilot's name, and manifest.
2. Determining with the pilot where the agency flight plan is to be closed.
3. Notify the receiving dispatcher the flight is being conducted on a filed FAA flight plan. Include the aircraft identification, pilot's name, manifest information, and planned flight schedule.
4. Inform the pilot of any instructions or information not previously covered in the resource order or verbal instructions.

For additional information, refer to the National Interagency Mobilization Guide, Chapter 50.

32.3 – Types of Flight

There are two types of flights: Special Use Mission and Point-to-point. Refer to 5705 for the definitions of these flights.

32.4 – Agency Flight Plans

All agency aircraft that are instrumented for IFR flight and are flown by current instrument-rated pilots will operate under IFR flight plans, except when:

1. Flight is primarily for VFR training.
2. Time will not permit mission completion under IFR.
3. Mission can only be accomplished under VFR.

4. Excessive Air Traffic Control (ATC) departure, enroute, or terminal area delays are encountered.
5. Hazardous weather conditions must be avoided.

32.41 – Point-to-Point

Point-to-point flights will be tracked by either an FAA-VFR flight plan, an IFR flight plan, or an Agency flight plan. PICs are not required to report to an agency dispatch office, but a courtesy call using the standard briefing script in 32.26 2b is encouraged.

Agency flight plans for Point-to-point flights are documented on a Flight Request/Flight Schedule form. The procedures for accomplishing agency flight tracking are documented in detail in the National Interagency Mobilization Guide.

32.42 – Overdue or Missing Aircraft

An aircraft is considered “overdue” when it fails to arrive within 30 minutes after the Estimated Time of Arrival (ETA) and cannot be located.

An aircraft is considered “missing” when its fuel duration, as reported on their request for flight following, or as reported on their FAA flight plan, has been exceeded, and the aircraft location is unknown. It can also be considered missing if it has been reported “overdue” to the FAA, and the FAA has completed an administrative search for the aircraft without success.

If an aircraft is overdue or missing, the pre-planned emergency response must be initiated, including the Interagency Mishap Response Guide and Checklist.

32.42a – Notifications

The first person or organization to determine that an aircraft is overdue must initiate overdue aircraft reporting requirements in accordance with a National or Regional aviation safety plan (FSM 5720) and must:

1. Notify the Regional Aviation Officer.
2. Notify the Regional Aviation Safety Manager.
3. Notify the Forest Aviation Officer.
4. Notify the FAA Flight Service Station when the flight has been conducted under agency flight following procedures.
5. Complete a SAFECOM report for all overdue flights.

In the event the aircraft is not located within 1 hour and 30 minutes after becoming overdue, the FAA notifies the Air Force Rescue Coordination Center.

32.42b – Search and Rescue

Refer to 30.41 for direction regarding Forest Service engagement in search and rescue operations.

32.42c – Local Unit Aviation Incident Response Training and Plans

Aviation Incident Response (AIR) is focused training that simulates response to an actual aircraft mishap or accident. The AIR plan documents the training curriculum, response roles and responsibilities and internal and external coordination needed when the mishap or accident occurs.

Forest Service local units must:

1. Establish an Aviation Incident Response (AIRE) Plan
2. Train and coordinate for the Aviation Incident Response.

The Aviation Incident Response Plan is specific to each unit and must include all personnel involved with aviation activities and accident response including but not limited to: Coordination Centers/dispatch centers, aircraft pilots, managers and crews, aviation officers, duty officers, interagency partners, and local agencies responsible for search and rescue. The AIR Plan must be updated annually at a minimum.

Regional/Program Aviation Safety Manager should be notified immediately of any aviation accident, incident with potential, or NTSB reportable incident.

32.5 – FAA Flight Plans

FAA flight plans are filed by the pilot, opened in flight upon departure, and closed by the pilot with FAA Air Traffic Control (ATC) or Flight Service upon arrival.

32.51 – FAA Flight Planning Responsibilities

The pilot-in-command must ensure that the preflight planning and the operation of the flight are completed and in compliance with the Federal Aviation Regulations (14 CFRs) and the requirements in 5709.16, chapter 50.

32.52 – Flight Plan Amendment and Cancellation

The pilot-in-command is responsible for amendments to the original flight plan, closing of the FAA filed flight plan, and/or cancellation with Air Traffic Control (ATC) when, in the pilot's opinion, the flight cannot operate or continue to proceed safely as planned.

32.6 – Automated Flight Following

Automated Flight Following (AFF) must be required in all Forest Service aircraft services contracts and is the primary method of agency flight following. AFF must be utilized, unless the aircraft or the flight following office suffers an AFF failure. At incident/project airbases that do not have AFF available, mission flight following is accomplished by flightcrews and dispatchers using radio systems.

Automated Flight Following (AFF) does not reduce or eliminate the requirement for FM radio capability and radio communication. Refer to the National Interagency Mobilization Guide, Chapter 50 – Automated Flight Following Requirements and Procedures.

AFF for Flight Following use is not required for sUAS.

33 – Flight Procedures

33.1 – Passenger and Cargo Operations

Any personnel not essential for Point-to-point flights must not be on the flight. Each passenger and all cargo must be on a passenger manifest or an aircraft flight request/flight schedule.

Any personnel flying on Special Use Missions must be authorized. Refer to 36.13 for the authorization process.

33.11 – Movement of Personnel in and Around Aircraft

1. Pilots of fixed-wing aircraft must shut down all engines prior to loading or unloading of passengers, unless otherwise provided for in an approved Forest Service or Interagency guide.
2. Pilots of either a fixed-wing aircraft or helicopter may not leave the cockpit of an aircraft unattended while any engine is running.
3. The Pilot-in-command, Fixed-Wing Base Manager, and Fixed-Wing Flight Manager are jointly responsible for ensuring routes to and from the aircraft are free of hazards; when there are hazards, they must provide other means to safely manage passenger loading and unloading.
4. For helicopter passenger and cargo loading and unloading, refer to the Interagency Helicopter Operations Guide.
5. For smokejumper operations, refer to the Interagency Smokejumper Pilot Operations Guide.

33.12 – Large Transport Operations

A Ramp Manager or similarly qualified person must be assigned to all large transport aircraft for the loading and unloading of personnel, baggage, and/or cargo. The Ramp Manager must be available at each location the large transport aircraft boards or deplanes passengers and/or cargo.

The Ramp Manager must coordinate with the flightcrew to ensure that passengers, baggage, and cargo are handled in accordance with the operator's FAA operating certificate and operations manual.

Refer to the Large Transport Aircraft Operations Plan for additional information, requirements, and aircraft make/model specific information.

33.2 – Passenger Briefing

The pilot-in-command must provide the oral briefing required by 14 CFR. This responsibility may be delegated to an aircrew member, flightcrew member, or crew member.

Elements of the briefing should include (when applicable):

1. Smoking on or near aircraft (within 50 ft.) is prohibited.
2. Use of safety belts and shoulder harnesses.

Safety belts must be worn at all times while seated, unless otherwise authorized by the Pilot-in-command for mission operations (such as, smokejumper, rappel, short-haul)

1. Seat back position during takeoff and landing.
2. Location and operation of:
 - a. Passenger entry door and emergency exits,
 - b. Survival equipment and first aid equipment,
 - c. Fire extinguishers,
 - d. Supplemental oxygen, and
 - e. Emergency Locator Transmitter (ELT).
5. Propeller, main and tail rotor, jet blast avoidance:
 - a. When a flight involves extended overwater operations, ditching procedures and the use of required flotation equipment, and

- b. If hazardous materials are to be transported, brief passengers appropriately.

33.3 – Flights Conducted Under Instrument Flight Rules (IFR)

Reserved.

33.31 – IFR Requirements

For flights in forecasted or actual Instrument Meteorological Conditions (IMC), use only multi-engine or turbine powered single-engine aircraft that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (14 CFR), Part 135, Part 91, and Part 61, as referenced in FSH 5709.16 or applicable contracts.

33.32 – IFR Departure Minimums and Procedures

Agency employee pilots will comply with published nonstandard IFR departure minimums and departure procedures in flight information publications. Agency employee pilots will not depart with less than 1/2 mile, Runway Visual Range (RVR) 2,400 ft. (or 732 meters). When departing an airfield with reported visibility less than that required for the approach in use at the departure field, a takeoff alternate is required. The takeoff alternate must be within one hour single engine cruise of the departure airfield. Flightcrews will not use an airport as a takeoff alternate unless appropriate weather reports or forecasts, or a combination of them indicate that at the estimated time of arrival at the takeoff alternate, the ceiling and visibility at that airport will be at or above the alternate minimums specified in that procedure, or if none are specified, the following standard approach minimums:

1. For a precision approach procedure, ceiling 600 feet and visibility 2 statute miles.
2. For a non-precision approach procedure, ceiling 800 feet and visibility 2 statute miles.

If no instrument approach procedure has been published in 14 CFR, Part 97, and no special instrument approach procedure has been issued by the FAA Administrator to the agency, the ceiling and visibility minimums are those allowing descent from the minimum altitude for IFR operations in VFR conditions.

33.33 – IFR Destination Airport Weather Minimums

No Forest Service pilot may takeoff or begin an IFR or VFR On Top operation unless the latest weather reports or forecasts, or any combination of them indicate that weather conditions at the estimated time of arrival at the next airport of intended landing will be at or above authorized IFR landing minimums.

33.34 – Use of Autopilot System for Passenger-Carrying IFR Flights

In aircraft certificated for single-pilot operations, the autopilot must be operational for passenger-carrying IFR flights. If the autopilot is not operational, but the aircraft is still able to be dispatched per the Minimum Equipment List (MEL), a second-in-command is required for passenger-carrying IFR flights.

33.4 – Night Flying

Refer to applicable 14 CFR Parts 61 and 91, operations plans, contracts, and 36.8.

33.5 – Sterile Cockpit

Sterile cockpit procedures are required for critical phases of flight, and must be briefed by the pilot-in-command prior to every flight.

No flightcrew member may engage in, nor may any pilot-in-command permit, any activity during a critical phase of flight which could distract any flightcrew member from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties.

This may include, but is not limited to, activities such as eating meals, engaging in nonessential conversations within the cockpit and nonessential communications between the cabin and cockpit crews, use of cell phones and/or tablets for other than flight operations, and reading publications not related to the proper conduct of the flight or not required for the safe operation of the aircraft.

33.6 – Manipulation of Flight Controls

The pilot-in-command may not allow any persons not qualified or approved by the agency to manipulate the flight controls of any aircraft during flight.

33.61 – Pinch Hitter Training

Pinch hitter training is designed to train and prepare a non-pilot for emergency situations only.

The Washington Office Branch Chief, Pilot Standardization must maintain a formal approved list of pinch hitter courses and requirements, updated annually. The Branch Chief must also maintain pinch hitter minimum syllabus requirements.

Candidates for pinch hitter courses must be identified and approved by Regional Aviation Officers.

While taking an approved pinch hitter course, employees are not considered passengers and are authorized to manipulate flight controls.

33.7 – Inflight Fuel Management – Fixed-Wing and Helicopter

33.71 – Reserve Fuel

VFR reserve fuel is adequate fuel to fly to the first point of intended landing plus, assuming normal cruising speed:

1. Day – additional 30 minutes.
2. Night – additional 45 minutes.

No person may operate an aircraft in IFR conditions unless it carries adequate fuel to fly to the first airport of intended landing plus, assuming normal cruising speed:

1. Helicopter – additional 30 minutes.
2. Fixed-wing – additional 45 minutes.

33.72 – Minimum Fuel

A minimum fuel condition exists if an aircraft's fuel supply has reached a state where, upon reaching the destination, it can accept little or no delay.

Pilots must declare Minimum Fuel at the first recognition of the impending condition.

33.73 – Emergency Fuel

The point at which, in the judgment of the PIC, it is necessary to proceed directly to the airport of intended landing due to low fuel. Declaration of a fuel emergency is an explicit statement that priority handling by ATC is both required and expected.

The PIC must submit a SAFECOM.

34 – Airspace

Refer to the NWCG Standards for Interagency Airspace Coordination and 30.9 for specific information related to Incident Air Operations.

34.1 – Airspace Coordination

Interagency airspace coordination and direction is accomplished through the Interagency Airspace Subcommittee chartered under the National Interagency Aviation Committee (NIAC). Guidance and education is provided through the NWCG Standards for Interagency Airspace Coordination.

34.2 – Fire Traffic Area (FTA)

The FTA provides a standardized communication protocol with spatial reference points to provide incident air traffic separation in proximity to the incident and while over the incident. FTA protocols standardize communications, clearances, and compliance. The FTA process must be used by all tactical aircraft. Refer to the NWCG Standards for Interagency Airspace Coordination, the Standards for Aerial Supervision, and 30.9.

34.21 – Firefighting Aircraft Transponder Code

The FAA has provided the 1255 Transponder code as the national designation for firefighting aircraft operations. It is not agency specific. The code must be utilized by aircraft responding to, and operating over, fire incidents supporting suppression operations, unless otherwise directed by Air Traffic Control (ATC). It is not to be used for repositioning or during cross-country flights. Refer to the NWCG Standards for Interagency Airspace Coordination, Chapter 5.

34.3 – Temporary Flight Restrictions

TFR's are issued by and controlled by the FAA. TFRs are an area of airspace (defined both laterally and vertically) that has been temporarily or partially closed by the FAA to non-participatory aircraft for a specified period of time. TFRs may be requested in response to the aviation safety need for separation of aircraft for disaster or incident activities. All aircraft must receive a clearance from the controlling agency requesting the TFR (or its authorized representative) utilizing the FTA communications protocol prior to entering the TFR. TFR's are requested through dispatch centers following established ordering procedures. The FAA will issue the TFR and post a Notice to Airmen (NOTAM).

The most commonly issued TFR for wildfire is 14 CFR, Part 91,137 (a) 2, which is explicit as to what operations are prohibited, restricted, or allowed. Refer to the NWCG Standards for Interagency Airspace Coordination, Chapter 6, for information on ordering procedures, coordination protocol, and exceptions.

Aviation managers must periodically review TFR protocols, size, application, the effects on general aviation, and the current need. If a TFR is not needed, it should be cancelled to free up the airspace.

Refer to the NWCG Standards for Interagency Airspace Coordination, Standards for Aerial Supervision, and 30.9.

34.4 – Airspace Boundary Plan

When resources are dispatched by more than one unit (including Regions, Forests, cooperators, states, metropolitan areas) to an incident that shares a common boundary, caution should be exercised to ensure safe separation and communication of responding aircraft. Boundary Plans must be prepared mutually and focus on a 10 NM-wide corridor for mutual or exchanged initial attack areas or zones. The purpose of this plan is to identify such boundaries and initial attack

zones and provide a means of communication, coordination, and airspace deconfliction within those areas. Refer to the NWCG Standards for Interagency Airspace Coordination.

34.5 – International Airspace Boundaries

Agreements between the United States firefighting agencies and the border countries of Mexico and Canada establish guidance and protocols for aerial firefighting operations along the border. Landings outside the United States are not authorized unless agreed upon by the sending and receiving units and the aircraft and pilots meet the requirements in 30.75. Refer to 30.75 for additional information about operations of agency and contract aircraft in Canada and Mexico. Local units are encouraged within the agreements to develop operating plans which define response and response zones. Units must ensure aviation protocols are included in operating plans which adhere to agency policy, provide for airspace management, national security, aerial supervision, and communication procedures.

Refer to the National Interagency Mobilization Guide, Chapter 10 – International Operations.

34.6 – Airspace Conflicts and De-confliction

34.61 – Airspace Conflicts

Aviation personnel have a responsibility to identify and report conflicts and incidents through the [Interagency SAFECOM \(Safety Communication\) System](#) to assist in the resolution of airspace conflicts. When a conflict or incident occurs, it may indicate a significant aviation safety hazard. Conflicts may include Near Mid Air Collisions (NMAC), TFR intrusions, and FTA communication non-compliance. Refer to the NWCG Standards for Interagency Airspace Coordination.

34.62 – Airspace De-confliction

Airspace de-confliction can occur for both emergency response and non-emergency aviation activities.

De-confliction can be accomplished through the following measures:

1. Originating units must obtain scheduling information from DOD units that have Special Use Airspace or Military Training Routes and share this information as “hazards” information on the Resource Order or Interagency Aircraft Dispatch Form when the aircraft is dispatched. For non-emergency flights, information may be shared through common communication protocol.
2. Current TFR information can be obtained from various sources, but the user should be aware of any disclaimers regarding the timeliness of the information provided therein.

34.7 – Airspace Agreements

When Special Use Airspace (SUA's), Military Training Routes (MTR's), Slow Routes (SR's), or Aerial Refueling Routes (AR's) are located over lands within an agency's jurisdiction or within their area of normal flight operations (fire or non-fire), the agency should consider instituting an agreement with the appropriate DOD entity that schedules the airspace. Refer to NWCG Standards for Interagency Airspace Coordination, Chapter 8, for further information and a template.

35 – Aviation Facilities Requirements

Requirements for aviation facilities are related to the planned mission activities, the size and type aircraft planned for, the support equipment needed, and fuel types and stores required to support the intended operation(s). Types of aviation facilities include permanent airports, airbases, heliports, seaplane bases, and helibases. All aviation facilities will meet minimum standards outlined in the appropriate program area guides (such as, Interagency Helicopter Operations Guide, Interagency Airtanker Base Operations Guide, and Interagency SEAT Operations Guide).

35.1 – Classification of Takeoff/Landing Locations

All flights that takeoff and land only at an FAA-designated airport, seaplane base, or permanent helibase (identified in the FAA Airport/Facilities Directory or FAA Sectional Aeronautical Charts), for the express purpose of personnel or cargo transport or repositioning, are considered Point-to-point. All flights that takeoff or land at a backcountry airstrip/off-airport/off-seaplane base must be considered a Special Use Mission due to the additional hazards.

35.2 – Planning

Planning for aviation operations must include the specific facility requirements needed for diversified aircraft and mission support. Fundamental consideration must be given to an adequate and sustained supply of aviation fuel meeting the specific requirements of the intended aircraft operations, such as Av-gas and/or jet fuel. Other considerations must include:

1. Airspace coordination.
2. Airport area congestion.
3. Adequate staging and parking for vehicles.
4. Adequate staging and parking areas for large aircraft/helicopters.
5. Coordination with airport owner, business, and general aviation.
6. Airport and land use agreements.
7. Adequate crash/rescue equipment for the aviation operation.

8. Loading and unloading capabilities for cargo and/or passengers.

35.21 – Mission Facility Requirements

Facilities selected for specific aviation missions must be capable of meeting the size, weight, and footprint of the type of operation and type of aircraft used. Additional consideration must be given to the environmental sensitivity of the adjoining area and population, such as noise over congested areas and retardant spills. A facility maintenance plan must be prepared and submitted to the regional engineering unit responsible for approving the plan.

35.3 – Airbase Operations Plan

Any Forest Service unit that has a permanent aviation facility must have an Airbase Operations Plan. Refer to FSM 5711, FSH 5709.16, chapter 11, and FSH 6709.11.

35.4 – Facilities Inspection Guidelines

For guidelines on facilities inspection for fixed-wing airport operations, refer to the Interagency Airtanker Base Operations Guide (IABOG), Interagency Helicopter Operations Guide (IHOG) for helicopter operations (Chapter 8), and FSH 7309.11, Buildings and Related Facilities Handbook for additional criteria.

35.5 – Aviation Facilities Not Located on Forest Service Land

Aviation facilities that are leased, owned, or used on non-Forest Service land fall under the jurisdiction of the governing entity of that land. Use of the facilities and/or the land must be covered by an agreement.

36 – Flight Operations

Flights are categorized as either Point-to-point flights or Special Use Missions. For definitions, refer to FSM 5705.

Point-to-point flights do not require any special pilot endorsements or aircraft equipment. These are civil flights and must be conducted in accordance with 14 CFR, Parts 91, 121, or 135, as applicable.

Special Use Missions are any flight that is not Point-to-point. They require special pilot endorsements, flight evaluations, and specialized aircraft equipment. For all Special Use Missions, all pilots must be specifically approved in writing for that mission.

Operations must be conducted in accordance with 14 CFR, Parts 91, 107, 133, and 137, as applicable to civil and public aircraft operations, except as provided for in Exemptions 392 and 392a (30.2).

Operation as “public aircraft” does not alter the requirement for compliance with the rules for civil aircraft (14 CFR, Parts 91, 107, 133, and 137) and the aviation regulations of the States in which the aircraft are operated, except as provided for in the preceding paragraph.

Refer to 36.7 and the National UAS Operations plan for UAS flight operations policy.

36.1 –Flight and Duty Limitations

36.11 – Standard Flight and Duty Limitations

1. All flightcrew members flying Forest Service missions are limited to the following tours of duty, and all work-related time must count toward these limitations:
 - a. Duty includes flight time, ground duty of any kind, and standby or alert status at any location. This restriction does not include “on-call” status outside of any required rest or off-duty periods.
 - b. Flight time must not exceed a total of 8 hours per duty day.
 - c. Assigned duty of any kind must not exceed 14 hours in any 24-hour period.
 - d. Flightcrew members accumulating 36 hours of flight time in any 6 consecutive days or less are required to have the following day off. Maximum cumulative flight hours must not exceed 42 hours in any 6 consecutive days.
 - e. Within any 24-hour period, flightcrew members must have a minimum of 10 consecutive uninterrupted hours off duty immediately prior to the beginning of the next duty day.
 - f. During any 14-consecutive-day period, flightcrew members must be off duty for two 24-hour periods from the time of last duty. The 24-hour off-duty periods need not be consecutive.
2. Two-pilot crews flying Point-to-point missions (airport to airport) are limited to 10 hours flight time in any duty day. Pilots flying two-pilot crew missions, who may be assigned to fly other types of Forest Service missions during the same duty period, are limited to the flight hour limitations in the preceding paragraphs 1a through 1f of this section.
3. Effect of Delays.
 - a. 11 consecutive hours of rest if the flight time limitation is exceeded by not more than 30 minutes;
 - b. 12 consecutive hours of rest if the flight time limitation is exceeded by more than 30 minutes, but not more than 60 minutes; and

c. 16 consecutive hours of rest if the flight time limitation is exceeded by more

4. If the planned flight will cause the pilot to exceed their maximum flight or duty time limitations, that pilot will not depart and will contact their Supervisor in order to make arrangements to the flight schedule.

5. This section only applies to pilots that are required to staff an aircraft as a flight crewmember.

Refer to the Interagency Incident Business Management Handbook for additional guidance.

36.12 – Interim Flight and Duty Limitations

Refer to Standards for Fire and Aviation Operations, Chapter 16 – Interagency Interim Flight and Duty Limitations.

36.13 – Administrative Use of Aircraft Operations

Personnel must use agency owned or other government aircraft for administrative purposes when such use is advantageous to the government. Authorize, justify, and document each instance of administrative use as required by the USDA Property Management Regulation 110-33, FSH 6509.33, OMB Circular A-126, 41 CFR 102-33, 41 CFR 301-70, 41 CFR 301-10, and 41 CFR 300-3.

Refer to the Administrative Use of Aircraft Guide to provide guidance and clarify the administrative use and reporting of aircraft.

36.13a – Essential to the Mission

The only personnel considered essential to the mission are the flightcrew, the air crew, and the mission crew members.

36.13b – Passengers on Special Use Missions

Washington Office aviation program managers, not qualified in the mission but who have direct oversight of special use mission operations, may be authorized on a very limited basis, to fly on operational flights with formal written approval from the Washington Office Director, Fire and Aviation.

Regional Aviation Officers and Regional Aviation Safety Managers, with direct oversight of special use mission operations, may be authorized, on a very limited basis, to fly on operational flights with formal written approval from the Regional Fire Director. This approval must be in coordination with the Washington Office Assistant Director, Aviation.

36.13c – Volunteers

When under a volunteer services agreement traveling on official business, volunteers are federal travelers. For guidance, refer to the Administrative Use of Aircraft Guide.

36.13d – Incident Flights with Persons Other Than Federal Employees in Government Aircraft

Senior Federal Officials, members of Congress, and non-Federal travelers (including special use mission aircrew) flying on Forest Service aircraft or under Forest Service operational control, regardless of the mission, must be approved on a Day Trip Authorization (FS 5700-12) by the line officer sponsoring the flight.

Refer to the Administrative Use of Aircraft Guide for specific requirements and reporting for non-federal travelers.

36.2 – Fixed-Wing Aircraft Operations

36.21 – Fixed-Wing Aircraft Performance Criteria

1. All aircraft operations must be within manufacturer's allowable gross weights, the performance criteria for the aircraft, and flight manual limitations in accordance with the operating rules the flight is operating under.
2. Single engine aircraft used for special use missions must have a power loading of not more than 13.5 pounds per horsepower.
3. Multi-engine aircraft used for special use missions must be capable of at least 200 horsepower per engine; any engine developing less than 240 horsepower must be turbo/supercharged.
4. Regional Aviation Officers may grant special approvals for single- and multi-engine aircraft not meeting the requirements for use in that Region based on a risk assessment for the mission to be performed, in accordance with FSH 5709.16, chapter 20. These conditions must be noted on the Aircraft Approval Card.
5. Special Use Mission Exception: Smokejumper missions may use a 0.6% second segment climb gradient during day, Visual Flight Rules flights.

If aircraft cannot meet these requirements, they must be downloaded either in fuel and/or payload until they meet the requirements.

36.22 – Low-level Flight Operations (Less than 500 feet AGL)

The only fixed-wing low-level flight missions authorized are:

1. Para-cargo.

2. Aerial Supervision Module (ASM) and Leadplane profile operations.
3. Aerial retardant, water, and foam application.
4. Operational Procedures:
5. A high-level recon must be made prior to low-level flight operations.
6. All flights below 500 feet must be conducted only within the area of operation.
7. PPE is required for all fixed-wing, low-level flights. Helmets are not required for multi-engine airtanker crews, smokejumper pilots, and ASM flight/aircrew members. Refer to the Aviation Life Support Equipment Handbook for specific Special Use Mission requirements.

36.23 – Reconnaissance

36.23a – Aerial Observation (Non-Fire)

Aerial observation flights are used to survey, observe, map, photograph, and otherwise gather information for agency resource management purposes. The aerial observer plans the intended route of flight, objectives, and expected duration, and coordinates with the Pilot-in-command.

The aerial observer has the responsibility to:

1. Trace the planned flight route on a map to note the terrain, drainages, rivers, and other landmarks suitable for navigation.
2. Ensure the pilot understands the aspects to be observed from the observer's side of the aircraft.
3. Maintain contact with local dispatch and/or the area coordination center and accomplish flight following in accordance with agency policy.

For non-fire missions, the aerial observer must be an IAT qualified aircrew member.

36.23b – Fire Detection

Only qualified aerial observers (AOBS) are authorized to perform aerial fire detection. The purpose of an aerial fire detection flight is to:

1. Gather and relay information.
2. Detect, map, and size up fire.
3. Provide ground resources with intelligence.

4. Provide recommendations to the appropriate individuals.

Flights with a “Recon, Detection, or Patrol” designation should communicate with tactical aircraft only to announce location, altitude, and to relay their departure direction and altitude from the incident. Only qualified Aerial Supervisors (ATGS, ASM, HLCO, and Lead) are authorized to provide aerial supervision and coordinate incident airspace operations.

Refer to the Forest Service Fire and Aviation Qualifications Guide.

36.23c – Forest Health Protection

FHP utilizes light fixed-wing aircraft and helicopters to conduct aerial reconnaissance, aerial photography, and aerial application. The purpose of these operations is to gather information regarding forest health conditions and manage pests in accordance with FSM 2100 and FSM 3400.

Agency personnel are not permitted on board restricted category aerial application aircraft and full PPE is required for aerial application pilots operating low level.

Operational altitudes:

1. Aerial Application in either fixed-wing or helicopter, low level (below 500 feet AGL).
2. Fixed-wing Aerial Survey 1,000 to 2,000 feet above ground level (AGL).
3. Helicopter Aerial Survey in accordance with IHOG, used in special circumstances and may be low level.
4. Fixed-wing Aerial Photography and Remote Sensing, highly variable up to ~18,000 feet.

All FHP Special Use Missions must, at a minimum, utilize a qualified FWFM Special Use for fixed-wing, or qualified Helicopter Manager-Resource for helicopter.

36.23d – National Infrared Operations

The National Infrared Operations (NIROPS) collects and processes high resolution airborne infrared imagery and fire detection data.

Refer to the National Infrared Operations Guide (NIROPS), Infrared Operations Pilot Training Guide, and National Interagency Mobilization Guide.

36.24 –Aerial Supervision

Aerial supervision resources are utilized to enhance safety, effectiveness, and efficiency of aerial/ground operations. These air supervision resources conduct operations in accordance with the Standards for Aerial Supervision.

Aerial supervision includes the following positions:

1. Air Tactical Group Supervisor;
2. Helicopter Coordinator;
3. Aerial Supervision Module; and
4. Leadplane.

Refer to the Standards for Aerial Supervision, 310-1, and the U.S. Forest Service Fire and Aviation Qualifications Guide for aerial supervision training and qualification requirements.

36.3 – Smokejumper Operations

Smokejumpers are aerielly-delivered firefighters that are rapidly deployed by fixed-wing aircraft and parachute. They are normally configured by planeload, depending on aircraft type and smokejumper availability. Smokejumpers can operate from permanent or spike base locations.

For additional information, refer to:

1. Interagency Smokejumper Operations Guide (ISMOG).
 - a. Forest Service National Smokejumper Training Guide;
 - b. Forest Service Ram-air Training Manual; and
 - c. Forest Service Ram-air Operations Plan (RAOP),
2. Policies and procedures prescribed in the FSM 5100/5700.
3. Interagency Standards for Fire and Aviation Operations Handbook.
4. Interagency Smokejumper Pilot Operations Guide (ISPOG).
5. Forest Service Fire and Aviation Qualifications Guide.

36.31 – Smokejumper Spotter

Smokejumper spotters receive advanced training and are qualified to drop smokejumpers and paracargo from an aircraft. They must be an experienced and active smokejumper, certified as an FAA Senior Rigger, capable of leading squads of smokejumpers on fire and work assignments, and provide oversight for spike base operations. Familiarization training is required on mixed load configurations for both FS-14 and Ram-air parachute systems.

Refer to the ISMOG and the U.S. Forest Service National Smokejumper Training Guide (Chapter 3) for smokejumper spotter training and qualification requirements.

36.32 – Smokejumper Pilots

Smokejumper/paracargo pilots must complete specialized training and obtain certification to perform the required mission.

Refer to the National Smokejumper Aircraft Contract, Aviation Management Handbook (FSH 5709.16, chapter 50), and the Interagency Smokejumper Pilot Operations Guide (ISPOG) for qualification and training requirements for smokejumper/paracargo pilot(s).

36.33 – Smokejumper Aircraft Evaluation

Smokejumper aircraft are evaluated and recommended for approval by the Smokejumper Aircraft Screening and Evaluation Subcommittee (SASES). This is an interagency subcommittee under the National Interagency Aviation Committee (NIAC) and is comprised of Forest Service, Bureau of Land Management (BLM), Office of Aircraft Services (DOI) and National Technology and Development Program (NTDP) subject matter experts.

The subcommittee evaluates and recommends approval for smokejumper and para-cargo aircraft and accessories to the contracting agency through NIAC. Refer to FSM 5704 for approval authority.

36.4 – Airtankers

Airtankers are used for initial attack, extended attack, and large fire in direct support of ground resources.

Refer to the Forest Service Large Airtanker Operations Plan for Airtanker Management.

36.41 – Large Airtankers

Large airtankers (LATs) are defined as turbine, multi-engine fixed-wing aircraft converted to function as retardant or water delivery airtankers. LATs are ICS Type 1 airtankers with 3,000 to 5,000 gallon retardant capacity. LATs are up to 165,000 pounds normal operating weight, which includes payload, flightcrew, and 2.5 hours of fuel.

The primary purpose for LATs is initial attack of new and emerging wildfires.

Airtankers greater than 165,000 and up to 350,000 pounds normal operating weight will be addressed when proposed on a case-by-case basis.

36.42 – Very Large Airtankers

Very large airtankers (VLATs) are defined as turbine, multi-engine fixed-wing aircraft converted to function as retardant or water delivery airtankers. VLATs are not ICS typed and carry more than 8,000 gallons of retardant. VLATs are greater than 350,000 pounds normal operating weight, which includes payload, flightcrew, and 2.5 hours of fuel.

The primary purpose for VLATs is large fire support. VLAT PICs are not initial attack rated and cannot drop on fires without the services of a leadplane or aerial supervision module on scene.

36.43 – Single Engine Airtanker Operations

The primary mission of a Single Engine Airtanker (SEAT) is initial attack.

Refer to the Standards for Single Engine Airtanker Operations and the Standards for Aerial Supervision for SEAT operational considerations and SEAT Manager responsibilities. Refer to the NWCG PMS 310-1 for qualifications.

36.44 – Airtanker Base Operations and Personnel

The airtanker base manager supervises ground operations in accordance with the Standards for Airtanker Base Operations.

36.44a – Airtanker Bases

Airtanker Bases (ATBs) are generally managed by local forests with national and regional oversight. The host forest is responsible for ensuring all established facilities are maintained and operated per the Forest Service policy, Interagency Airtanker Base Operations Guide (IABOG), and the Occupational Safety and Health Administration (OSHA) standards. Airtanker Base Managers (ATBMs) are responsible for development of a base operations plan based on regional direction.

Airtanker bases not permanently established, not in the Interagency Airtanker Base Directory, and used on an on-call or temporary basis must have an operations plan as outlined in the Interagency Airtanker Base Operations Guide. Approval of the actual airport, in terms of large airtanker performance, must be pre-approved by the Washington Office Airtanker Program Manager in coordination with regional aviation staff.

All airtanker bases—permanent, call-when-needed, and temporary—will have overweight authorizations or waivers if large airtankers exceed the published weight-bearing capacity. The written authorization or waiver must come from the airport authority and be in place prior to large airtanker operations. Overweight authorizations and waivers will address runways, taxiways, and ramps and be specific to airtanker Max Gross Landing Weight and Max Gross

Taxi Weight. The Forest Service must not be held liable for airtanker operations unless the Forest Service or the airtanker vendor cause damage due to operator error or negligence.

Airtanker Base facilities, base operations, procedures, ramp operations, aircraft maneuvering, emergency procedures, ATB job descriptions, and dispatch information can be found in the Interagency Airtanker Base Operations Guide (IABOG), found at: <http://www.nwcg.gov/sites/default/files/products/pms508.pdf>.

36.44b – Airtanker Base Types

There are three basic types of airtanker bases, permanent, call-when-needed, and temporary.

Permanent Base: A base that has permanent infrastructure installed in an identified area to service airtankers and support aircraft. In addition, the base will have permanent personnel whose main role is to act as management for the base and its facilities.

Call-when-needed Base: A base that has permanent infrastructure installed in an identified area to service airtankers and support aircraft. The base does not have permanent personnel whose main role is to act as management for the base but could have personnel identified at the local level who have collateral duties to the base.

Temporary Base: Designation for an airport identified as having the capacity to serve the need of loading airtankers and that has been approved for this purpose. The airport would have little if any infrastructure to support the loading of airtankers and the corresponding equipment would have to be delivered and set up. This term would be used regardless of the ownership of the mixing and loading equipment. Personnel could be identified at the local unit to facilitate the management of the temporary base or personnel from outside of the area may be utilized in the management of the base.

36.44c – Airtanker Base Staffing

There are three configurations for staffing an airtanker base, full time, seasonal, and call-when-needed.

Full Time: The base is at least minimally staffed in a configuration that allows a very short to immediate availability to provide support year round.

Seasonal: The base is minimally staffed in a configuration that allows very short to immediate availability and support only during a “season,” based on local historic need.

Call-when-needed: The base is staffed only when fire severity or activity occurs.

None of the terms is descriptive of an airtanker base. These terms are only descriptive of the staffing. Seasonal and call-when-needed staffing are generally used at temporary bases.

36.44d – Temporary Airtanker Base Equipment – Portable and Mobile

There are two type of retardant mixing and loading equipment, Portable and Mobile.

Portable Airtanker Base (PAB): currently refers to operations, standby facilities, and retardant mixing equipment that can be transported to a location and set up.

Mobile Retardant Base (MRB): currently refers to a portable retardant mixing plant available through the national retardant contract.

Neither term is descriptive of an airtanker base. These terms are only descriptive of the types of equipment and facilities that may be in use at a temporary airtanker base. A base is not identified by the method that equipment and facilities are procured or obtained.

36.45 – Airtanker Pilot Evaluation, Approval, and Currency

Refer to 5709.16, chapter 50 for airtanker pilot evaluation and approval for contract and cooperator aircraft. Additional information is also contained in the specifications of the applicable contract.

Airtanker pilots-in-command, co-pilots, and flight engineers (when applicable) must maintain flightcrew readiness and proficiency. Refer to 5709.16, chapter 50 and the applicable contract for proficiency flight requirements.

36.46 – Airtanker Inspection and Approval

Refer to 5709.16, chapter 40 for airtanker inspection and approval for contract and cooperator aircraft. Additional information is also contained in the Forest Service Special Use Mission Airworthiness Assurance Guide and specifications of the applicable contract.

36.47 – Airtanker Operations

For airtanker operations, follow the Forest Service Large Airtanker Operations Plan, Interagency Airtanker Base Operations Guide, Interagency Standards for Fire and Fire Aviation Operations (Red Book), and the National Interagency Mobilization Guide. In addition to federally contracted airtankers, MAFFS (military) and cooperator aircraft may be utilized to supplement the federal fleet through established agreements.

36.47a – Airtanker Retardant Delivery System Evaluation

Airtanker retardant delivery systems, helitanker water delivery systems, and water scoopers are evaluated and recommended for approval by the Aerial Delivery System Subcommittee (ADSS). This is an interagency subcommittee under the National Interagency Aviation Committee (NIAC) and is comprised of Forest Service, Bureau of Land Management (BLM), and Office of Aircraft Services (DOI) subject matter experts.

The Aerial Delivery Test Team (ADTT) is a unit under ADSS and supports the testing and evaluation of the static and grid test drops required by ADSS criteria. ADTT completes and documents the testing and provides a report to the ADSS for consideration. ADTT is primarily staffed by Forest Service National Technology and Development Program subject matter experts.

The ADSS evaluates proposed airtankers, helitankers, and water scooper aircraft and their delivery systems and recommends approval for of the aircraft and retardant delivery system to the contracting agency. Refer to FSM 5704 for approval authority.

36.47b – Airtanker Rotation

The national airtanker fleet is composed of Exclusive Use (EU), Call When Needed (CWN), Forest Service (FS) owned Large Airtankers (LATs), and Single-Engine Airtankers (SEATs). All VLATs, LATs, and SEATs operating from the same base must be dispatched in first in/first out rotation, based on the type of airtanker requested (VLAT, LAT, or SEAT).

Airtankers that are not Initial Attack (IA) qualified will not be dispatched to IA fires unless a Lead Plane or Aerial Supervision Module (ASM) is on scene upon the arrival of the non-IA qualified airtanker.

Forest Service contracted airtankers, when assigned to incidents managed by other agencies or cooperators remain under the direction of the Contracting Agency. Forest Service contracted airtankers are bound by their contract and agency policy, and will be treated fairly and equitably during their assignment with other Federal, Tribal or State agencies.

Refer to the Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 16.

36.47c – Loading Operations

All Forest Service owned, contracted, and MAFFS airtankers must be loaded with a mass flow meter in the loading line(s) to measure retardant weight in pounds. All airtankers operating on lands under Forest Service protection must be loaded with a mass flow meter.

Report each retardant load total weight to the airtanker pilot-in-command. Use retardant load total weight in the preflight completion of the aircraft's weight and balance computation. Follow the requirements for retardant/water metering:

1. Maintain retardant/water mass flow meters at each airtanker base, and ensure their capability to record the weight of the retardant loaded into an airtanker in pounds prior to flight.
2. Mass flow meters at airtanker bases must be calibrated, at a minimum, every 24 calendar months. Airtankers must not be loaded if the mass flow meter has not been calibrated within the previous 24 calendar months.

Forest Service owned, contracted, and MAFFS airtankers must be operated and loaded only from approved airtanker base locations. This approval must be granted in writing by the Regional Aviation Officer. The approval must also identify airtanker bases that are capable of logistically and operationally supporting SEATs, LATs, VLATs, and MAFFS. The criteria for approval are outlined in the Large Airtanker Operations Plan.

Refer to the IATBOG, and the airtanker base operations supplement for updated information, operational considerations, related direction, and specific base operations and procedures.

36.47d – Simultaneous Fueling and Retardant Loading – Turbine Airtankers

Simultaneous loading is the concurrent loading of fuel and retardant with propulsion engines stopped. An onboard Auxiliary Power Unit (APU) may be in operation.

Simultaneous loading for turbine airtankers is authorized with the following actions.

1. Cooperator – The cooperator aircraft has been evaluated and approved by the Regional Aviation Officer (RAO) in a Cooperator Letter for this purpose. The cooperator will provide documentation of a risk assessment and operating practices for their particular airtanker and comply with those policies during this activity. The risk assessment will be provided to the RAO and reviewed by the National Airtanker Program Manager, the RAO, and the Regional Aviation Safety Manager (RASM).
2. Contractor – will provide documentation of a risk assessment and operating practices for their particular airtanker and comply with those policies during this activity. The risk assessment will be provided to the Contracting Officer and reviewed by the National Airtanker Program Manager and the Branch Chief, Aviation Safety.
3. Each airtanker base that intends to conduct Simultaneous Loading will develop a supplement to the Airtanker Base Operations Plan which will describe the training and practices to be used. The supplement will be reviewed by the Regional Aviation Officer (RAO).
4. Base personnel who will participate in this operation will be trained using the Simultaneous Loading supplement, and a record of personnel trained for this operation must be maintained at the airtanker base.
5. Simultaneous loading must be requested by the Base Manager (or Base Manager's representative), on a case-by-case basis.
6. A documented pre-operational briefing must occur between the flightcrew, Base Manager (or Base Manager's representative), and local airport fuelers prior to any simultaneous loading operation. This briefing will include a review of the Simultaneous Loading Operations supplement, contractor procedures, and airport procedures.

7. Only the Auxiliary Power Unit may be running, no propulsion engines may operate.

36.47e – Retardant Hot Loading – Turbine Airtankers

Retardant Hot Loading is the loading of retardant with one or more propulsion engines running. Retardant Hot Loading for turbine airtankers is authorized with the following actions:

1. Cooperator – The cooperator aircraft has been evaluated and approved by the Regional Aviation Officer (RAO) in a Cooperator Letter for this purpose. The cooperator will provide documentation of a risk assessment and operating practices for their particular airtanker and comply with those policies during this activity. The risk assessment will be provided to the RAO and reviewed by the National Airtanker Program Manager, the RAO, and the Regional Aviation Safety Manager (RASM).
2. Contractor – will provide documentation of a risk assessment and operating practices for their particular airtanker and comply with those policies during this activity. The risk assessment will be provided to the Contracting Officer and reviewed by the National Airtanker Program Manager and the Branch Chief, Aviation Safety.
3. Each airtanker base that intends to conduct Retardant Hot Loading will develop a supplement to the Airtanker Base Operations Plan which will describe the training and practices to be used. The supplement will be reviewed by the Regional Aviation Officer (RAO).
4. Base personnel who will participate in this operation will be trained using the Retardant Hot Loading supplement, and a record of personnel trained for this operation must be maintained at the airtanker base.
5. Retardant Hot Loading must be requested by the Base Manager (or Base Manager's representative), on a case-by-case basis.
6. A documented pre-operational briefing must occur between the flightcrew, Base Manager (or Base Manager's representative) prior to any Retardant Hot Loading operation. This briefing will include a review of the Retardant Hot Loading Operations supplement, contractor procedures, and airport procedures.
7. No engines on the side of the Retardant Hot Loading activity may be running.

36.47f – Congested Area Retardant Operations

Conduct all aerial retardant operations over congested areas in accordance with the agency Grant of Exemption 392 (30.21a, Exhibit 1). For related direction, refer to 14 CFR, Part 137.51.

36.47g – Safe and Effective Drop Height – Fixed-Wing Airtankers

Safe and effective drop height increases from the minimum as the coverage level (6 to 8) increases. All retardant must be dropped from a safe and effective drop height that enables the retardant to enter the fuel surface vertically. The following are minimum drop heights for airtankers above the ground or canopy cover, whichever is higher:

1. VLAT 200’;
2. LAT 150’; or
3. SEAT 60’.

36.47h – Jettison Areas

Refer to the local Airtanker Base Operations Plan and contact the local Airtanker Base Manager.

36.48 – Retardant and Suppressant Guidelines

36.48a – Approved Retardants and Suppressants

Only retardant, gels, or foams that are on the Forest Service Wildland Fire Chemicals Qualified Products List (QPL) may be used on Federal lands, to include Federal land protected by other agencies. Products not on the QPL may be used on non-federal land at the discretion of the local agency.

Products must be blended or mixed at the approved ratio specified in the QPL by approved methods, prior to being loaded onto the aircraft. Inaccurate mixing of fire chemicals may negate the suppressant or retarding properties, which is not cost effective and may be a safety factor.

Airtanker base managers must monitor fire chemical specifications and mixing to ensure the fire chemicals meet the requirements noted in the QPL. Any deviations from the specifications and mixing must be reported to Wildland Fire Chemicals Systems.

Aerial delivery of foam is no longer approved by the Forest Service. Other partner agencies and cooperators may also restrict or prohibit use of foam.

The QPL is maintained on the Wildland Fire Chemical Systems (WFCS) web site: <http://www.fs.fed.us/rm/fire/wfcs/index.htm>.

36.48b – Guidelines for Aerial Application near Waterways

Avoid aerial application of retardant, gel, or foam within 300 feet of any waterway or body of water, including lakes, rivers, streams and ponds, whether or not they contain aquatic life. Exceptions to these guidelines are allowed when life is threatened and use of retardant, gel, or foam is reasonably expected to alleviate the threats.

For operational guidelines on use of fire chemicals, refer to the Interagency Standards for Fire, Implementation Guide for Aerial Application of Fire Retardant, and Fire Aviation Operations Handbook, Chapter 12.

36.49 – Large Transport Aircraft Operations

36.49a – Contract Large Transport Aircraft

Contract large transport aircraft are used to rapidly move up to 120 personnel long distance in support of wildland fires and all-hazard incidents. These aircraft are contractually required to meet 14 CFR, Part 121 commercial air carrier, or Part 125 regulations, as well as Forest Service specific requirements.

These flights are considered Special Use Missions, because they are ordered incident flights to directly support an incident.

Refer to 33.12, and the Large Transport Aircraft Operations Plan for additional information.

36.49b – Agency-owned Large Transport Aircraft

Agency-owned Large Transport Aircraft are used to rapidly move up to 20 people in support of wildland fire and all-hazard incidents. These aircraft meet FAA and Forest Service requirements for transport category aircraft.

They can be used to move incident management teams, single crews, aerial delivered firefighter booster crews, large cargo loads, and small support vehicles.

A loadmaster is required for all passenger or cargo flights.

These flights can be either Special Use Missions, if they are ordered incident flights to directly support an incident, or administrative use Point-to-point flights.

36.5 – Helicopter Program

All helicopter operations must be conducted in accordance with the Interagency Helicopter Operations Guide (IHOG), the applicable helicopter operations guides and plans, and the aircraft contract.

Flightcrews and aircrews must operate in accordance with the minimum standards established in the Interagency Helicopter Pilot Practical Test Standards.

The applicable Hover out of Ground Effect (HOGE) chart will be used for initial attack operations, first time into remote landing site, or when the pilot deems that environmental conditions warrant use of HOGE chart.

36.51 – Helicopter Performance Criteria

Minimum helicopter performance must meet the following criteria:

Contract	Type	Altitude	Temperature	HOGE/ HOGE-J	Payload (lbs.)	Other Criteria
EU	1	8000'	25° C	HOGE-J	5000	Tier 1
	1	7000'	20° C	HOGE-J	3300	Tier 2
CWN	1	7000'	20° C	HOGE-J	3300	
EU	2	7000'	20° C	HOGE	1650	Bucket/Rappel
	2	7000'	20° C	HOGE	1200	Tank
CWN	2	5000'	30° C	HOGE-J	1600	
EU	3	7000'	30° C	HOGE	900	
CWN	3	5000'	30° C	HOGE	400	

Allowable payload(s) include using a standard pilot(s) weight of 200 pounds and fuel for one hour and thirty minutes (01+30).

Helicopters must be turbine-powered only.

36.52 – Interagency Helicopter Screening and Evaluation Subcommittee (HSES)

Helicopters are evaluated and approved by the Interagency Helicopter Screening and Evaluation Subcommittee, a subcommittee of the National Interagency Aviation Committee (NIAC) under NWCG. This is a group of Forest Service, Department of the Interior, and State members. The HSES evaluates helicopters and related accessories for potential use in the interagency fleet or contract helicopter operations.

The subcommittee evaluates and recommends approval for helicopters and accessories to the contracting agency through NIAC. Refer to FSM 5704 for approval authority.

36.53 – Helicopter Operations

36.53a – Personal Protective Equipment

Follow the direction on the use of personal protective equipment (PPE) described in the Interagency Helicopter Operations Guide (IHOG) (NFES 1885) or Interagency Aviation Life Support Equipment Guide.

36.53b – PPE Requirements for Helicopters in Extreme Environmental Conditions

Helicopter operations may occur in environmental conditions where required PPE does not adequately protect employees from the extreme environment or weather.

Required PPE may be excepted as identified in the table below:

Environmental Conditions	Permissible PPE Exceptions
Snow, Extreme Cold	<ul style="list-style-type: none"> • Leather, Rubber, or Synthetic Insulated Winter Footwear extending over the ankle • Ski Boots • Synthetic Outerwear
Bogs, Marshes, Fens, Muskegs	<ul style="list-style-type: none"> • Leather, Rubber, or Synthetic Water Resistant Footwear extending over the ankle

Fire resistant clothing, such as fire resistant cotton, polyamide, aramide, polybenzimidazole, Kevlar, or blends thereof must be worn as a protective layer against the skin when PPE exemptions listed above are used.

Agency employees must be informed of the increased personal hazard that is associated with wearing non-fire resistant clothing or footwear when the full complement of PPE is not worn.

The MASP for the project must document PPE exception(s) and reference this policy.

36.53c – Helicopter Minimum Staffing

Changing a Standard Category helicopter to Limited Use is only applicable to Call-When-Needed helicopters and must not be used for Exclusive Use helicopters². Utilization of Limited Use must be for wildland fire assignments when helitack personnel assigned to staff the CWN helicopter may be in route to the incident.

	Type 1	Type 2	Type 3
Limited Use	1	1 ¹	1 ¹
Helitack	NA	15	7 ²
Rappel	NA	15	NA
Short-haul	NA	NA	10

¹ The Regional Aviation Officer may approve CWN helicopters in Limited Use for wildland fire assignments.

² Region 8 may staff exclusive use and CWN suppression (PR) and fuels (HF) type 3 helicopters with a minimum of 3 helitack when operating within the Region. Any assignments outside of the Region will require a full module of 7 helitack personnel.

Each unit hosting an exclusive-use helicopter is responsible for providing essential management, overhead, equipment, facilities, and the resources necessary to fully support the helicopter crew. Helicopter personnel responsibilities are outlined in the IHOG, and their training and currency requirements are contained in the Forest Service Fire and Aviation Qualifications Guide and PMS 310-1.

36.53d – Rappel Operations

Rappellers are aerially delivered firefighters that are rapidly deployed by helicopter landing or deployed by hovering helicopter and rope near an incident.

Rappellers are a national resource certified, staffed, and equipped to increase capacity to any of the rappel bases or be deployed by any of the type 2 rappel aircraft available in the system.

Rappel activities must be conducted in accordance with the Interagency Helicopter Rappel Guide and the Forest Service National Rappel Operations Guide.

36.53e – Cargo Letdown

Cargo letdown must be conducted in accordance with the Forest Service National Rappel Operations Guide.

36.53f – Short Haul and Hoist

The Forest Service has approved short-haul operations for Law Enforcement and Investigations (LEI) and Emergency Medical missions.

Hoist operations are only approved for LEI missions.

LEI short-Haul and hoist operations must be conducted in accordance with the IHOG and the Forest Service, National Law Enforcement and Investigations Short-Haul and Hoist (S-H/H) Guide.

Emergency medical short-haul operations must be conducted in accordance with the IHOG and the Forest Service Helicopter Emergency Medical Short-Haul Operations Plan.

36.53g – Aerial Ignition

Aerial ignition operations and projects must be conducted in accordance with the Interagency Aerial Ignition Guide and the IHOG.

36.53h – Aerial Capture, Eradication, and Tagging of Animals (ACETA)

ACETA operations must be conducted in accordance with the Department of Interior, Office of Aviation Services, ACETA Handbook.

36.53i – Snow Operations

Snow operations must be conducted in accordance with the Interagency Helicopter Operations Guide, Snow Operations chapter.

36.54 – Helicopter Coordinator Missions

The Helicopter Coordinator (HLCO) coordinates, directs, and evaluates tactical/logistical helicopter operations. Refer to 30.91d for specifics on the Helicopter Coordinator position.

36.6 – Law Enforcement and Investigations (LEI) Aviation Operations

The LEI personnel must follow the FSH 5309.11, chapter 50, FSM 5700, and FSH 5709.16 for all aviation operations.

Local LEI personnel that are required to utilize aircraft to support aviation operations should discuss all aspects of the operation with the FAO or UAO well in advance of operations.

All transport of hazardous materials during LEI operations must follow the Interagency Aviation Transport of Hazardous Materials Guide.

36.61 – Special LEI Aviation Projects

Occasionally there are “special” law enforcement aviation missions that are not covered in a standard FRAT. If any proposed flights are not covered by an appropriately established aviation plan, then a FRAT will be prepared. This includes the use of aviation resources for Flight Service Contracts. The responsible individual will prepare a FRAT and submit the plan for review and approval. All LEI operations will have a FRAT prior to commencing operations. Line Officers must be informed of law enforcement and investigator non-covert aviation activities within their area of responsibility.

36.62 – LEI Aviation Training

LEI personnel involved with aviation activities must receive and be current in required aviation training outlined in the Wildland Fire Qualification System Guide, the Forest Service Fire and Aviation Qualifications Guide, the Interagency Aviation Training Guide, and the LEI National Short-haul Guide, commensurate with the aviation position they will fill, prior to any aviation operations.

36.63 – LEI Flights with Civil Air Patrol

The Civil Air Patrol (CAP) can transport Forest Service LEI employees in accordance with the FSM 1534.12, Exhibit 01, MOU Between the Drug Enforcement Administration, the US Forest Service, the Civil Air Patrol, Inc., and the US Air Force; however, there must be written operating procedures established.

LEI personnel must utilize aircraft and pilots that have been approved for use by a letter of approval from the Regional Aviation officer. Not all CAP pilots and/or aircraft will be approved for use.

Certain LEI operations could lead to actions in conflict with Forest Service policy; refer to 30.13a.

36.64 – U.S. Departments of Homeland Security (USDHS) and Justice (USDOJ) Approvals

LEI employees on official duty are allowed to fly aboard USDHS and USDOJ agency aircraft, while performing joint law enforcement operations and coordinating missions with DHS and DOJ agencies.

Agreements with USDHS and USDOJ regarding joint law enforcement aviation operations must be used to provide overall operational requirements and procedures for all agencies.

Field Level LEI employees must notify the Regional Special Agent in Charge. Washington Office LEI employees must notify the Director of LEI.

All flights under this authorization must include notification of the appropriate Regional Aviation Officer where the flight occurs.

36.65 – LEI Personal Protective Equipment (PPE) during Tactical Operations

Follow the direction on the use of personal protective equipment (PPE) described in the Interagency Helicopter Operations Guide (IHOG) (NFES 1885). Approved PPE must be prescribed by the incident commander, operations Supervisor, or their designee per FSM 5300. Law enforcement personnel are authorized to wear the following for special tactical operations, for emergency flights, or on flights that are short in duration:

1. Battlefield dress uniform (BDU),
2. Forest Service uniform, or
3. Approved utility uniform.

36.66 – LEI Emergency Operations

The LEI personnel must follow the FSH 5309.11, chapter 52.15 – Emergency Operations.

36.7 – Unmanned Aircraft Systems

Unmanned Aircraft Systems (UAS) operating in the national airspace system are considered by the Federal Aviation Administration (FAA) as aircraft, regardless of size. Accordingly, any planned use (including through agreements), acquisition, contracting, or leasing of UAS must be coordinated with the Forest Service Washington Office, Fire and Aviation Management, Assistant Director Aviation and/or the Washington Office, UAS Program Manager.

Additionally, the appropriate Regional Aviation Officer (RAO) must be included in any discussion about proposed UAS operations.

All UAS operations are considered Special Use Missions and must comply with the applicable agency requirements, FAA regulations, and agency policy for privacy, reporting, tracking, data management, and transparency.

The FAA has published 14 CFR Part 107, which provides requirements for non-hobby small UAS (sUAS).

Any Forest Service leased, contracted, or owned UAS will operate within the provisions of 14 CFR Part 107 or under a Certificate of Authorization (COA) from the FAA before operating within the national airspace system.

Forest Service COA applications or use of an Agency blanket COA must be submitted to the FAA by the Forest Service Washington Office, Fire and Aviation Management, Technical Contact. The FAA lead time for a new COA is approximately 90 days. Changes to an existing COA can occur using the emergency COA process and at a minimum takes 24 to 48 hours.

All contracts for UAS flight services must go through the aircraft contracting process administered by the Washington Office Acquisition Management – Incident Support Branch (Boise) contracting office.

Initial requirements to utilize a UAS on National Forest System land:

1. Coordinate with RAO and WO, submit mission request to RAO/WO.
2. Complete a risk assessment per agency policy.
3. Complete a Mission Aviation Safety Plan (MASP).
4. Determine airspace authorization required and submit COA request as applicable.
5. Complete a Flight Risk Assessment Tool (FRAT) that includes the mission requirements.

Additionally, non- fire missions require a cost comparison, JHA, and a list of safety & cost-effective considerations.

36.71 – Approval of UAS Aircraft and Pilots

Aircraft must be approved per FSH 5709.16, chapter 40.

Pilots must be approved per FSH 5709.16, chapter 50.

The Department of the Interior and bureau UAS will be considered Partner aircraft.

State and local agencies meeting both FAA and USFS requirements will be considered Cooperator UAS.

36.72 – UAS Operations

All UAS operations must comply with the applicable FAA regulations and agency policy for privacy, reporting, tracking, data management, and transparency.

The National UAS Operations Plan provides operational guidelines and further references to policy.

The Interagency Fire Unmanned Aircraft Systems Guide must be used for all UAS operations on wildland fires.

All sUAS missions will adhere to the PASP or Operations Plan, as applicable.

The remote PIC must coordinate all sUAS flights with the Unit Aviation Officer and local unit dispatch. Conduct sUAS flights in accordance with approved operations and safety plans.

36.73 – Unmanned Aircraft Systems Screening and Evaluation Board

Reserved.

36.8 – Night Flying

Requirements for all pilots flying agency night missions are in accordance with 14 CFR 135.229, as follows:

No pilot of an aircraft carrying passengers at night may take off from, or land at, an airport, unless:

1. The pilot has determined the wind direction from an illuminated wind direction indicator or local ground communications, or in the case of takeoff, that pilot's personal observations.
2. The limits of the area to be used for landing or takeoff are clearly shown:
 - a. For airplanes, by boundary or runway marker lights; and
 - b. For helicopters, by boundary or runway marker lights, or reflective material.

36.81 – Night Air Operations

Night Special Use Mission flights are authorized by an operations plan approved by the Washington Office Assistant Director, Aviation. Where applicable, additionally comply with Fire Scope Night Flying Guidelines.

1. The restrictions in 36.7 do not apply to helicopters operating with Night Vision Devices (NVDs). Low-level helicopter flight operations will primarily be conducted using NVDs; temporary unaided flight is allowed when excessive illumination exists and becomes hazardous to NVD-aided flight.
2. Night Low-level fixed-wing flight operations are not allowed. Refer to 37.3.

3. Use only multi-engine or turbine-powered single engine fixed-wing aircraft for night special use mission flights and meet the requirements of 36.8.

36.81a – Night Administrative use of Aircraft Flights

Use only multi-engine or turbine-powered single engine fixed-wing aircraft for night administrative use of aircraft flights and meet the requirements of 36.8.

37 – Operations Requiring Special Flight Techniques

37.1 – Back Country Airstrips, Off-Airport Operations, Off-Seaplane Base Operations

For the purpose of Forest Service aviation operations, an airport includes those locations that are charted on a VFR sectional and have at least one hard surface runway (concrete or asphalt) or are a charted seaplane base. Airports other than these need additional authorization and are considered Backcountry Airstrips, Off-airport, or Off-seaplane Base operations.

Backcountry Airstrips are defined as runways that typically do not have a hard surface runway, whether charted or uncharted. Backcountry Airstrips are designated as such by RAO letter and require agency authorization for agency and vendor pilots to use when conducting Forest Service aviation missions.

Off-airport operations consist of landing on any surface not defined as an Airport or Backcountry Airstrip.

Off-seaplane Base operations consist of landing or taking off from any non-charted waterway (remote water operations).

Backcountry Airstrips, Off-airport and Off-seaplane Base operations may have additional risks due to blind approach and departure paths, short and/or narrow landing surfaces, unimproved surfaces, remote locations, and hazardous terrain and obstacles that may require a non-standard traffic pattern and/or confined area maneuvering at minimum airspeeds. In addition, Off-seaplane base takeoff and landing areas can have unknown water depths and hazards. These airstrips may be considered very hazardous and/or demand exceptional or unique aircraft performance. Off-airport/seaplane Base operations require a high level of skill and proficiency to operate safely.

Refer to FSH 5709.16, chapter 50, for Backcountry Airstrip, Off-airport, and Off-seaplane Base pilot qualifications.

37.11 – Approval of Backcountry Airstrips

Backcountry Airstrips that are approved/not approved for Forest Service operations must be identified by letter from the RAO, in coordination with their aviation staff. The list will be updated as airstrips are built, charted, closed, or removed from the RAO designation letter.

37.11a – Relative Hazard Index

All Backcountry Airstrips on National Forest System Lands must have a Relative Hazard Index (RHI) completed by the Regional aviation staff, and approved by the Regional Aviation Officer at least every two years. Backcountry airstrips that lack a current RHI are not authorized for use in Forest Service aviation operations.

37.2 – Mountain Flying

Standards and procedures for mountain flying techniques are contained in the Pilots Handbook for Smokejumper and Interagency Smokejumper Pilot Operations Guide.

Helicopter:

1. Preferred mountain flying training courses include: Canadian Mountain Flying Course and the United States Military Mountain Flying Course.
2. Mountain Flying Computer Based Training can be found online:
<http://onlinetraining.nwcg.gov/node/175>.
3. Standards are located in the Interagency Helicopter Practical Test Standards.
4. Pilots must be endorsed for mountain flying operations.

Fixed-wing:

1. Standards are located in the Interagency Fixed-wing Practical Test Standards.
2. Pilots shall be endorsed for mountain flying operations.

37.3 – Low-level Flight Operations

37.31 – Low-level Fixed-wing Flight Operations

37.31a – Multi-Engine Air tankers and ASM/Leadplanes

Multi-engine airtankers, water scoopers, and ASM/Leadplanes must be dispatched to arrive over a fire (with no aerial supervision on scene) not earlier than 30 minutes after official sunrise and not later than 30 minutes before official sunset. Drop operations must only be conducted during daylight hours. Drop operations are permitted after official sunset but must have concurrence by the involved flightcrews. In addition, aerial supervision (lead, ASM, or ATGS) must be on scene. Daylight hours are defined as 30 minutes prior to sunrise until 30 minutes after sunset. Empty multi-engine airtankers may return to base after daylight hours.

In Alaska, multi-engine airtankers and water scoopers are not authorized to drop retardant/water during periods outside of civil twilight.

37.31b – Single-Engine Airtankers

Single-engine Airtankers (SEATs) are limited to flight during official daylight hours.

37.31c – Other Low-level Fixed-wing Flight Operations

Low-level fixed-wing flight operations must be conducted only in daylight Visual Meteorological Conditions (VMC).

Except for takeoff and landing, pilots shall not fly fixed-wing aircraft below 500 feet above ground or canopy level, except for the following approved training practices, firefighting and Special Use Missions:

1. Para-cargo drops; or
2. Aerial Seeding/Spraying.

37.32 – Low-level Helicopter Flight Operations

Low-level helicopter flight operations must be conducted only in daylight Visual Flight Rules (VFR) conditions, except for the exception listed in 36.8.

Except for takeoff and landing, pilots must not fly helicopters below 500 feet above ground or canopy level, except for the following approved training practices, firefighting and Special Use Missions:

1. Aerial delivery of retardant, water and water enhancers;
2. Aerial Ignition – helitorch and plastic sphere dispenser or similar aerial ignition devices;
3. Rappel and Short-haul;
4. Cargo Letdown;
5. Aerial Seeding/Spraying; or
6. External load delivery of cargo.

37.33 – Personal Protective Equipment for Low-Level Flights

Personnel participating in low-level flights (below 500 feet above ground level excluding takeoff and landing) must wear the personal protective equipment specified in the appropriate operations guide at all times during such flights. Refer to IHOG, ISOG, IASG, and the ALSE Handbook.

37.4 – Amphibious and Seaplane Aircraft Operations

Amphibious and Seaplane Aircraft Operations must be conducted in accordance with agency operations plans specific to the mission.

Amphibious Water Scooping Aircraft (Water Scoopers) operate in accordance with the Water Scooping Aircraft Operations Plan. This plan does not cover Fire Boss (Air Tractor Single Engine Airtankers on Floats) which are contracted by the Department of the Interior or state agencies.

Forest Service DeHavilland DHC-2 Beavers hosted in the Eastern Region (9) and Pacific Northwest /Alaska Regions (6/10) operate in accordance with the applicable Regional Operations Plan.

Other contract amphibious and seaplane aircraft operations must have an operations plan specific to their mission(s) approved at the regional level.

38 – Aviation Security

38.1 – General

38.11 – Objective

Provide an aviation security program, which includes:

1. Aviation facilities and aircraft security standards.
2. Aviation security adjustment plans that respond to changes in Homeland Security threat levels.
3. Quick response emergency procedures.

38.12 – Responsibility

38.12a – Assistant Director, Aviation, Fire and Aviation Management

The Assistant Director, Aviation, Fire and Aviation Management, has the responsibility to:

1. Establish aviation security policies and procedures for the Forest Service.
2. Ensure that timely information about aviation security is shared with Forest Service personnel and aviation personnel as directed by the USDA Homeland Security and Emergency Coordination (OHSEC) Staff, the Department of Homeland Security, and the Forest Service Law Enforcement and Investigations Staff.

The Assistant Director, Aviation, may delegate some of these responsibilities.

38.12b – Regional Aviation Officers

Regional Aviation Officers have the responsibility to:

1. Ensure the implementation of all aviation security procedures in the Region.
2. Maintain a list of Forest Service Aviation Site Managers/Site Security Officers and alternates for all Forest Service aviation facilities.
3. Serve as point of contact for Director of Fire and Aviation Management, Washington Office, on all aviation security matters.
4. Conduct the physical security analysis utilizing the physical security standards checklist in 38.21 Exhibit 1 to determine vulnerabilities and develop physical security recommendations.
5. Track the physical security assessment dates for each base to ensure assessments are performed every five (5) years.

The Regional Aviation Officer may delegate some of these duties and responsibilities.

38.12c – Site Manager/Site Security Officers

The Site Manager/Site Security Officers (SM/SSO) have the responsibility to ensure implementation of all the applicable aviation security procedures and policies for their sites, either directly or by delegating responsibility to an agency designee. The SM/SSO has the responsibility to:

1. Complete the risk assessment process for the facility.
2. Oversee maintenance of physical and procedural security measures for the aviation facility.
3. Ensure development of Homeland Security Response Plans.
4. Register for email notification of the National Terrorism Alert System (NTAS) at <http://www.dhs.gov/alerts>.

38.12d – Airspace Liaison

Reserved.

38.13 – Definitions

Refer to FSM 5705 and the NASMSG.

38.14 – References

Refer to FSM 5706.

38.2 – Physical Security

Forest Service Aviation permanent facilities are considered to be Facility Security Level II unless specifically designated otherwise. FSL designation changes will be coordinated with the USDA OHSEC and the Assistant Director, Aviation, Fire and Aviation Management.

38.21 – Physical Security Standards

The Interagency Security Committee provides a series of Security Criteria for FSL II facilities. 38.21 Exhibit 1 provides minimum recommended Security Countermeasures for an airtanker base and can be used in conjunction with the FSL II security criteria for other aviation facilities or for airtanker bases during increased threat conditions.

38.21 Exhibit 1 can be used as the physical security checklist.

38.21 Exhibit 1 – Physical Security Checklist

Facility Perimeter
Fencing: <ul style="list-style-type: none">• Minimum 6-foot chain link fence with 3-strand barbed wire top guard pointing away from the protected area at permanent airtanker facilities.• Fencing must meet or exceed the requirements specified within the FAA approved airport security plan.• Fence and top guard must be properly maintained.
Access Control: <ul style="list-style-type: none">• Gates must be locked and/or controlled at all times.• Locks may include high security lock, keypads, or an HSPD-12 approved card reader and must be properly maintained.
Lighting: <ul style="list-style-type: none">• Minimum of 3 foot candles for building entrances of permanent facilities while facility is active.• Minimum of 1 foot candle for parking lots and circulation areas.
Signage: <ul style="list-style-type: none">• “NO TRESPASSING” or similar signs posted in prominent locations surrounding perimeter of facility.• Areas with restricted access should have appropriate signs posted.• Building exits that lead to restricted areas should be signed accordingly.• Signs should be multi-lingual in appropriate locations.

38.21 Exhibit 1 – Physical Security Checklist--continued

Facility Perimeter
<p>Lock and key control:</p> <ul style="list-style-type: none">• Facility must utilize a “key control” system• Number of keys available must be limited• Keys may not be duplicated without approval• Excess keys must be located in secure and locked location• Key Custodian must be appointed• Complete inventory of keys must be performed annually
<p>Security Plan:</p> <ul style="list-style-type: none">• The base/facility must have a Security Plan that is properly coordinated with the airport authority and/or local law enforcement• The security plan should be updated and re-validated annually
<p>Personnel Access:</p> <ul style="list-style-type: none">• Security plan must identify any areas of facility that are “Restricted.”• Identification system must be used for areas of facility deemed “Restricted.”• Color coded shirts, hats, jackets, etc.• LincPass Credentials.• Other techniques.• A government employee must escort personnel without proper LincPass Credentials and/or ID.

38.21 Exhibit 1 – Physical Security Checklist--continued

Facility Perimeter
Parking: <ul style="list-style-type: none">• Access to parking in sensitive areas of facility must be limited and controlled• ID check• ID badge/ID card• Security guard• Other procedures
Surveillance, monitoring, and site supervision: <ul style="list-style-type: none">• Security plan must specify the level and type of surveillance and monitoring provided• Facility personnel, private security, Forest Service law enforcement, local law enforcement, National Guard, etc.• Facilities used to respond to type II and larger incidents will provide security 24/7
Retardant and Hazmat Storage
Retardant Mixing Station: <ul style="list-style-type: none">• Tanks and valves that could be used to drain tanks must have a positive locking mechanism and/or tamper proof/tamper evident seals• Security plan must specify pre-use inspection procedures• Mixing Station should be illuminated
Materials storage: <ul style="list-style-type: none">• Hazardous material should be properly stored in lockable containers and/or storage tanks• Utilize tamper-proof/tamper-evident seals and/or locks• Distribution of hazardous materials monitored by authorized persons

38.21 Exhibit 1 – Physical Security Checklist--continued

Personnel Access
Guests/Visitors: <ul style="list-style-type: none">• Restricted area access• Guests and visitors shall be escorted at all times by an employee with LincPass.• Verify and document identification information for all guests and visitors.• Check and document information.• Signature/initials of who verified information.• Date and time of visit.• Supervision provided for all visitors while at facility.
Building and Hangar Security
Access Control: <ul style="list-style-type: none">• Buildings must be properly locked and/or controlled at all times.• Locks may include high security lock, keypads, or HSPD-12 approved card readers, and must be properly maintained.• Intrusion Detection Systems (IDS) should be utilized to include the proper use of door contacts, glass break sensors, and/or motion detection.• Doors must have security astragals to protect locks from being pried open and exposed hinges must have security screws installed.
Surveillance and Monitoring Services: <ul style="list-style-type: none">• Intrusion Detection Systems (IDS) should be utilized to include the proper use of door contacts, glass break sensors, and/or motion detection.• IDS should annunciate to a response force such as Airport Authority, Facility personnel, private security, Forest Service law enforcement, local law enforcement, National Guard, etc.• Facilities used to respond to type II and larger incidents will provide security 24/7.

38.21 Exhibit 1 – Physical Security Checklist--continued

Building and Hangar Security
Fire Alarms and Suppression: <ul style="list-style-type: none">• Fire alarms must be installed in Operation Buildings and Hangars.• Fire extinguishers should be properly placed, maintained, and inspected annually.
Aircraft
Government Owned Aircraft: <ul style="list-style-type: none">• After hours: Aircraft must be properly locked and secured.• Aircraft must be secured in locked hangar where available.• Proper locks include but are not limited to propeller locks, door locks, wheel locks, etc.• UAS must be secured for accountable property or WCF aircraft standards, as appropriate.
Contract Aircraft: <ul style="list-style-type: none">• Statement of Work for Contract Aircraft must stipulate that the contractor is responsible to properly secure their aircraft when not in use.• After hours: Aircraft must be properly locked and secured.• Aircraft must be secured in locked hangar where available.• Proper locks include but are not limited to propeller locks, door locks, wheel locks, etc.
Information Protection
Security Codes and Information: <ul style="list-style-type: none">• Ensure protection of security codes.• Update/change security codes regularly.

38.21 Exhibit 1 – Physical Security Checklist--continued

Information Protection
Personally Identifiable Information (PII): <ul style="list-style-type: none">• PII must be properly secured in lockable containers.• PII must be properly destroyed with a cross-cut paper shredder when it is no longer needed.
IT Security: <ul style="list-style-type: none">• Laptops must be properly secured when not in use to include but not limited to locked cabinets, laptop cables, lockable desk drawers, etc.• Computers must be equipped with LincPass Card Readers.
Temporary Facilities and Helibases
Temporary Tanker Bases: <ul style="list-style-type: none">• When aircraft are at the facility overnight, facility must either meet minimum standards detailed above or provide 24-hour coverage by security personnel.• Forest Service, local law enforcement, private security, county, city, National Guard, etc.• Facilities used to respond to type II incidents will provide security 24/7.
Helibases: <ul style="list-style-type: none">• Facility monitored by personnel at site.• Security plan should consider increased security, such as providing security personnel 24/7, during ongoing incidents.

38.21 Exhibit 1 – Physical Security Checklist--continued

Undeveloped and Remote Sites

- There are a number of ways an aircraft may be disabled and secured. One method is to use security personnel to guard aircraft during non-operational periods. Another method utilized to secure aircraft may incorporate the use of a mechanical device.
- However, with recent concerns in securing and locking aircraft, there may be two key 14 CFRs that may be overlooked.
- The first is 14 CFR Part 23.679, which states: "If there is a device to lock the control system on the ground or water (a) there must be a means to- (1) give unmistakable warning to the pilot when the lock is engaged."
- The second 14 CFR, Part 23.783 (c) (6) states: "Auxiliary locking devices that are actuated externally to the airplane may be used but such devices must be overridden by the normal internal opening means."
 - All agricultural spray application aircraft must be disabled when not in use so that they cannot be started and/or operated by anyone other than authorized personnel.
 - All aircraft will have a keyed locking shut-off device for the fuel system to prevent aircraft operation.
 - Security will be provided by the contractor during off-duty hours.
- Following are a few recommendations that may be used, in part or whole, to secure various types of aircraft.
 - Aircraft, where hangars are available, should be locked inside.
 - Aircraft cabin doors will be locked.
 - Flight logbooks and credit cards should be removed when not in use.
 - Small expensive items, such as hand-held GPS units, should be removed and secured when not in use.
 - Pre-flight inspections will include checks for tampering of any sort.
 - Keys will be managed in secure locations only.

38.22 – Security Self-Assessment

The Manager of each Forest Service aviation facility must utilize 38.21 – Exhibit 1 to complete a security self-assessment every five years, or when major changes to the facility have occurred, such as change in tenant organizations, large construction, etc.

After completion, the self-assessment checklist must be submitted with identified threats, vulnerabilities, and mitigations to the Regional Aviation Management Staff. After review by the Regional Aviation Staff, a copy of the self- assessment checklist and a mitigation strategy will be provided to OHSEC and the Aviation Management Staff, Washington Office.

38.23 – Vulnerability Level

Based upon the completed self-assessment, the Forest Service Aviation Site Manager/Site Security Officer must categorize the facility into one of the following:

1. High Vulnerability Level. No meaningful security measures present.
2. Medium Vulnerability Level. Some security measures, either physical or procedural, are present.
3. Low Vulnerability Level. Adequate security measures, both physical and procedural, are present but could be improved.

If additional security measures are needed, consult OHSEC for further recommendations.

38.3 – Agency Security Response Actions

38.31 – Objective

1. To ensure the Forest Service is prepared to increase security standards at agency aviation facilities in response to Homeland Security National Terrorism Advisory System (NTAS) Alerts. NTAS replaces the color-coded Homeland Security Advisory System (HSAS). This new system will be more effective in communicating information about terrorist threats by providing timely, detailed information to the public, government agencies, first responders, airports, and other transportation hubs, and the private sector.
2. To develop and implement appropriate Agency-specific protective measures required by the Department of Homeland Security. NTAS Alerts will be issued through state, local and tribal partners, the news media and directly to the public via the following channels:
 - a. The official DHS NTAS webpage – <http://www.dhs.gov/alerts>.
 - b. Email signup at – <http://www.dhs.gov/alerts>.
 - c. Social media:

(1) Facebook – <http://facebook.com/NTASAlerts>.

(2) Twitter – <http://www.twitter.com/NTASAlerts>.

d. Data feeds, web widgets, and graphics, such as, <http://www.dhs.gov/alerts>.

The public can also expect to see alerts in places, both public and private, such as transit hubs, airports, and government buildings.

38.32 – Policy

1. The Forest Service must design responses to threats based on the Agency-specific protective measures required by the Department of Homeland Security.
2. The Forest Service must immediately adjust the level of aviation security any time a national threat level changes.

38.33 – Regional, Area, and Station Homeland Security Aviation Response Plan

Each Region, Area, and Station must develop a Homeland Security Aviation Response Plan that details the security actions that each Region will implement, based upon NTAS Alerts or as necessary. The Regional, Area, and Station Aviation Response Plan must be reviewed by the Fire and Aviation Management staff, Washington Office.

The Homeland Security Regional Aviation Response Plan should have, as a minimum:

1. Key points of Regional aviation facilities;
2. Key contacts;
3. Emergency notification, equipment, personnel, and evacuation information;
4. Regional responsibilities, including response to NTAS alerts and security breaches;
5. Hazardous materials handling;
6. Information protection; and
7. Description and records of self-inspections, drills and exercises, and response training.

38.34 – Facility Homeland Security Response Plan

Each aviation facility must develop a Facility Homeland Security Response Plan that is specific to that aviation facility and details the security actions the facility will take for each Homeland

Security alert. The Facility Response Plan must be reviewed by the respective Regional Aviation staff.

The response plan should have, as a minimum:

1. Facility description, including diagrams of facility site plan, drainage, and evacuation plan;
2. Facility information, including its name, type, location, owner, operator information;
3. Key contacts;
4. Emergency notification, equipment, personnel, and evacuation information;
5. Responsibilities;
6. Facility access and security (such as, fences, lighting, alarms, guards, emergency cut-off valves, locks, and so forth);
7. Materials handling;
8. Information protection; and
9. Description and records of self-inspections, drills and exercises, and response training.

38.35 – Homeland Security Response Plan Requirements

Upon receipt of an NTAS Alert including their facilities, a Risk Assessment for that alert must be performed. Listed below are measures that each aviation Homeland Security Response Plan may consider in response to applicable National Terrorism Alert System (NTAS) Alerts. These are listed in an increasing threat order, so that if the risk assessment shows a low threat, Managers might only need to take the first few actions. The Physical Security Criteria for Federal Facilities Standard provides different countermeasures to achieve different Levels of Protection (LOP). The Design-basis Threat provides additional information to assist in evaluation of threats.

1. Continue to conduct physical security assessments of facilities and ensure employees are following protocols in the regional and aviation facility Response Plans.
2. Ensure that assessed standards are in place and maintained.
3. Forward information to personnel relative to the alert received.
4. Use emergency checks to ensure communications equipment is operable.

5. Assess additional security needs based on specific targets or threats.
6. Evaluate intelligence in conjunction with the FBI and other information sources to assess effects on the agency.
7. Disseminate alert, intelligence, and security information to representatives.
8. Maintain communications with Federal, Tribal, State, and local law enforcement.
9. Update security codes at facilities.
10. Provide additional training and readiness information to identified target areas or affected individuals.
11. Evaluate and confirm intelligence received in conjunction with the FBI and other information sources to assess potential effects on the Agency. Provide continuous dissemination of alerts and intelligence to appropriate representatives and field units.
12. Ensure that assessed standards in the regional and aviation facility Homeland Security Response Plan are in place and maintained.
13. Arrange for additional security measures, such as adding more security personnel, based on identified targets or threats.
14. Notify law enforcement and emergency personnel to be on standby.
15. Evaluate abandoning bases that may be likely targets.
16. Evaluate readying alternate bases in strategic locations.
17. Evaluate Agency aircraft status to determine availability of aircraft and pilots and ensure pilot assignments are made for each aircraft.
18. Prepare to relocate aircraft to alternate locations in order to meet current mission requirements and the high condition orange threat level.
19. Evaluate circumstances and determine the need to contact appropriate homeland security representatives and/or law enforcement and to evaluate placement of additional equipment to meet mission requirements and the high condition orange threat level.
20. Update security codes and alert notices at all facilities.
21. Notify law enforcement, Geographic Area Coordination Centers, and other appropriate personnel of the status and availability of aircraft.
22. Lock down secondary access points to facilities in order to provide a single entry-point.

23. Establish an Airspace Liaison with the Air Traffic Services Cell at the Air Traffic System Command Center (ATSCC) when Security Control of Air Traffic and Navigation Aids (SCATANA), Emergency Security Control of Air Traffic (ESCAT), or a similar emergency airspace control mechanism is activated. This Airspace Liaison must coordinate flight priorities for firefighting emergency operations exempted under SCATANA/ESCAT.
24. Close facilities or areas according to threat and ability to maintain security.
25. Redirect law enforcement and emergency response personnel as needed to protect critical facilities and resources.
26. Prepare to leave bases that could be targets or activate temporary bases in strategic locations.
27. Restrict access to facilities to assigned personnel only.